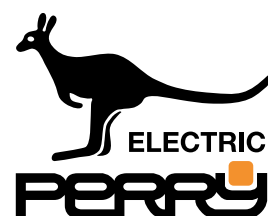




General catalogue **2022**



Società italiana per la costruzione di apparecchi elettrici  

## PERRY ELECTRIC

Components of electrical installations



## PERRY EMERGENCY

Emergency lighting



## PDA ENERGY

Energy efficiency and heat metering



Since 1969

More than 50 years of experience in manufacturing:

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## Manufacturer since 1969

The constant expansion of thermohydraulic and electrical distribution allows **FERRY** to be closer and closer to its customers. The presence in more than 40 countries worldwide are the heritage of the Company, which pays attention to the needs of every geographical area.



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## WALL MOUNTED AND TABLE PROGRAMMABLE THERMOSTAT MULTI-ZONE AND MULTIMEDIA

WI-FI - RF868 MHz - M-Bus

### CRM4.0



CRM031WIFI - CRM032WIFI  
CRM033WIFI



**N**  
New

## WALL MOUNTED PROGRAMMABLE THERMOSTATS

WI-FI

### WI-FI



CR028WIFI



CR029WIFI



**N**  
New

## THERMOSTATS

DIGITAL

### NEXT



TE028A - TE028B  
TE029A - TE029B

### SLIM



TE011B

TE400/B - TE410/B  
TE402/B - TE411/B

### ZEFIRO 80x80



TE530B - TE531B - TE532B

## IN WALL

## PROGRAMMABLE THERMOSTATS - H 45 mm

WI-FI

DIGITAL "NEXT"

WI-FI

SOFT TOUCH

TOUCH SCREEN



**N**  
New

CDS29WIFI



CDS28 - CDS29



CDS26 - CDS27

## THERMOSTATS - H 45 mm

ELETTRONIC

### MODULO



TE301/MC - TE331/MC  
TE302/MC  
TE303/MC - TE333/MC  
TE305/MC

### MODULO FANCOIL



TEF365/MC

### ZEFIRO



TE510A - TE510B  
TE511A - TE511B  
TE513A - TE513B

### PERSONAL



TE101 - TE103

## INDUSTRIAL TEMPERATURE CONTROL MODULAR THERMOSTATS 2 DIN

ELETTRONIC



TE082 - TE083  
TE084



TE075 - TE076  
TE077 - TE078



TE052/M

## CONTACT THERMOSTATS

ELETTRONIC



TB060 - TB065 - TB071  
TB081 - TB088 - TB090 - TB091

## DIGITAL

### NEXT



CR028A - CR028B  
CR029A - CR029B

### UP&DOWN COMPACT



CR017AG - CR017BG  
CR018AS - CR018BS

### EASY



CR308/G - CR309/S

### SLIM



CR311B

## ELETTRONIC

### ZEFIRO



TE500A - TE500B  
TE501A - TE501B  
TE502B  
TE503A - TE503B  
TE565B - TE566B

### PERSONAL



TE120 - TE120/A  
TE122 - TE122/A

### EUROPA



TE036 - TE065  
TE041  
TE046

## GAS ESPANSION

### TEG



TEG130 - TEG131  
TEG131RA - TEG132  
TEG136

## IN WALL THERMOSTATS - H 45 mm

### DIGITAL "NEXT"

### SOFT TOUCH



TE540  
TE541 - TE541E

### TOUCH SCREEN



TE542 - TE543

### DIGITAL "MODULO"



TE312/MC - TE322/MC  
TE313/MC - TE323/MC

## CONTROL DEVICES

### CONTROL BOXES



BP04230 - BP08230

## WIRELESS TEMPERATURE CONTROL



CRTX05

TETX04  
TETX03

VTRX02

CCR01

RX01/P  
RX02/P  
RX0801/P

BC0401/230  
BC0801/230

## CE

LVD: 2006/95/CE EN 60730-1, EN 60730-2-9  
EMC: 2004/108/CE EN 60730-1, EN 60730-2-9

# CRM4.0 – PROGRAMMABLE THERMOSTAT MULTI-ZONE AND MULTIMEDIA



- It is a programmable thermostat always connected that allows to program, manage and control the comfort of the different rooms of the house, adapting to the users' needs, reducing the energy consumption.
- Adjust up to 8 zones and 16 actuators to ensure maximum comfort and minimum waste in the various areas of the apartment. With the advanced thermoregulation module **MTE01** it can also interact with single boilers with OpenTherm protocol version 2.2 (Advanced Class V thermoregulation).
- Simple to install and use, it can also be managed by remote through the APP that can be downloaded on smartphones and tablets.
- Equipped with software for integration and Alexa voice commands.

Ready for the home automation functions of the home: shutters, curtains, lights, irrigation...

**CRM4.0** system complies with the European directive 2014/53/UE (RED).

**CRM4.0** is available in 3 versions:

## **1DOCRM031WIFI**

Wall mounted model equipped with:

- Wi-Fi
- Alexa voice assistance Software
- RF 868 MHz
- M-BUS radio 868 MHz
- 1 relay
- Internal temperature probe
- Remote probe input
- Built-in power supply

## **1DOCRM032WIFI**

Wall mounted model equipped with:

- Wi-Fi
- Alexa voice assistance Software
- RF 868 MHz
- M-BUS radio 868 MHz
- RS485 (for control box)
- Internal temperature probe
- Remote probe input
- Built-in power supply

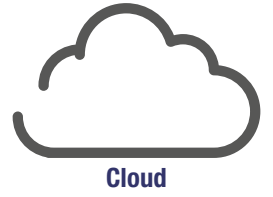
## **1DOCRM033WIFI**

Table model equipped with:

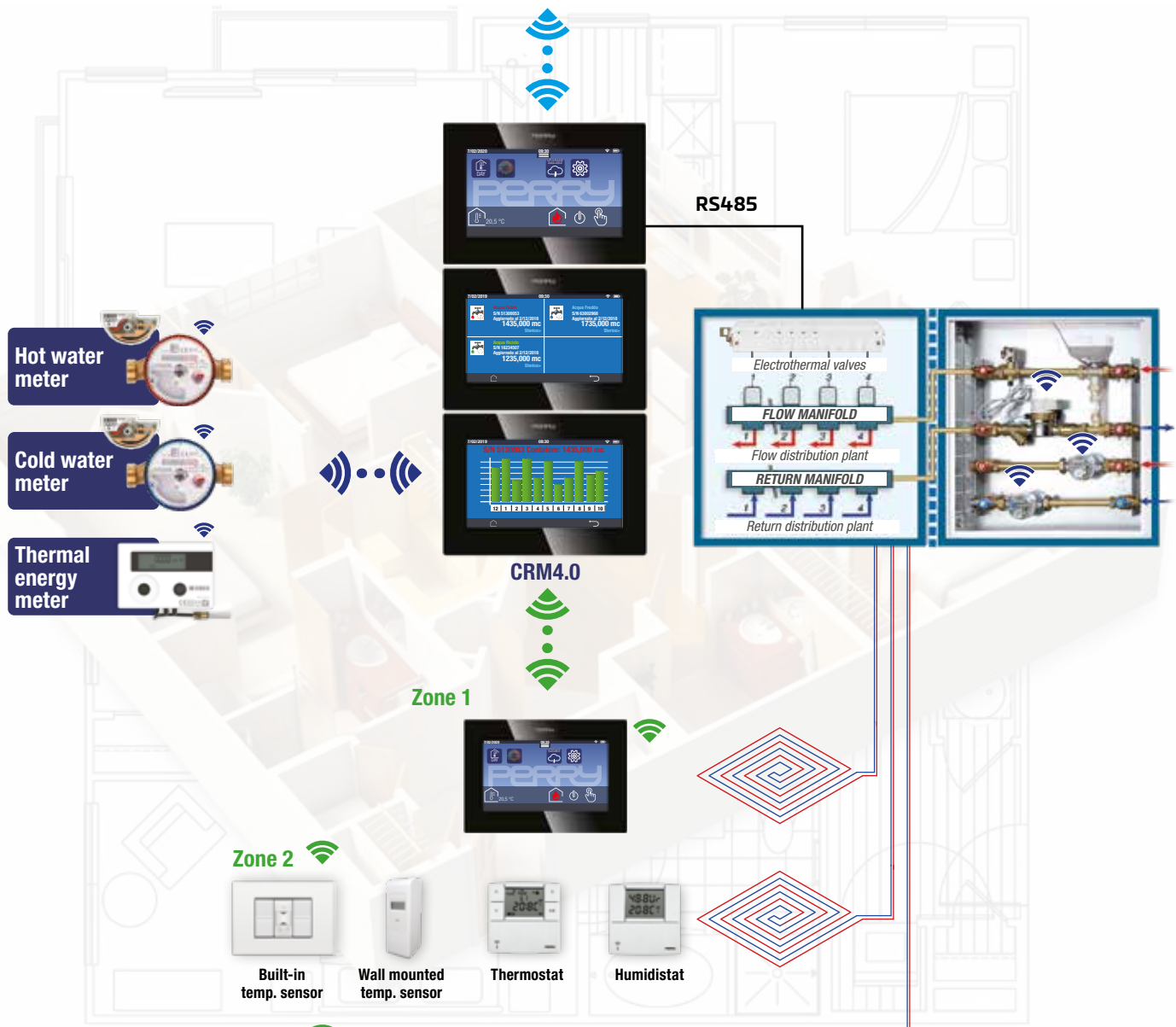
- Wi-Fi
- Alexa voice assistance Software
- RF 868 MHz
- M-BUS radio 868 MHz
- Internal temperature probe
- Plug-in power supply

# GENERAL INSTALLATION SCHEME

## ON WEB



## IN THE APARTMENT



### Legenda

- Wi-Fi
- RF 868Mhz
- M-BUS radio
- BUS RS485
- Hot and cold water

### Zone 2

- Built-in temp. sensor
- Wall mounted temp. sensor
- Thermostat
- Humidistat

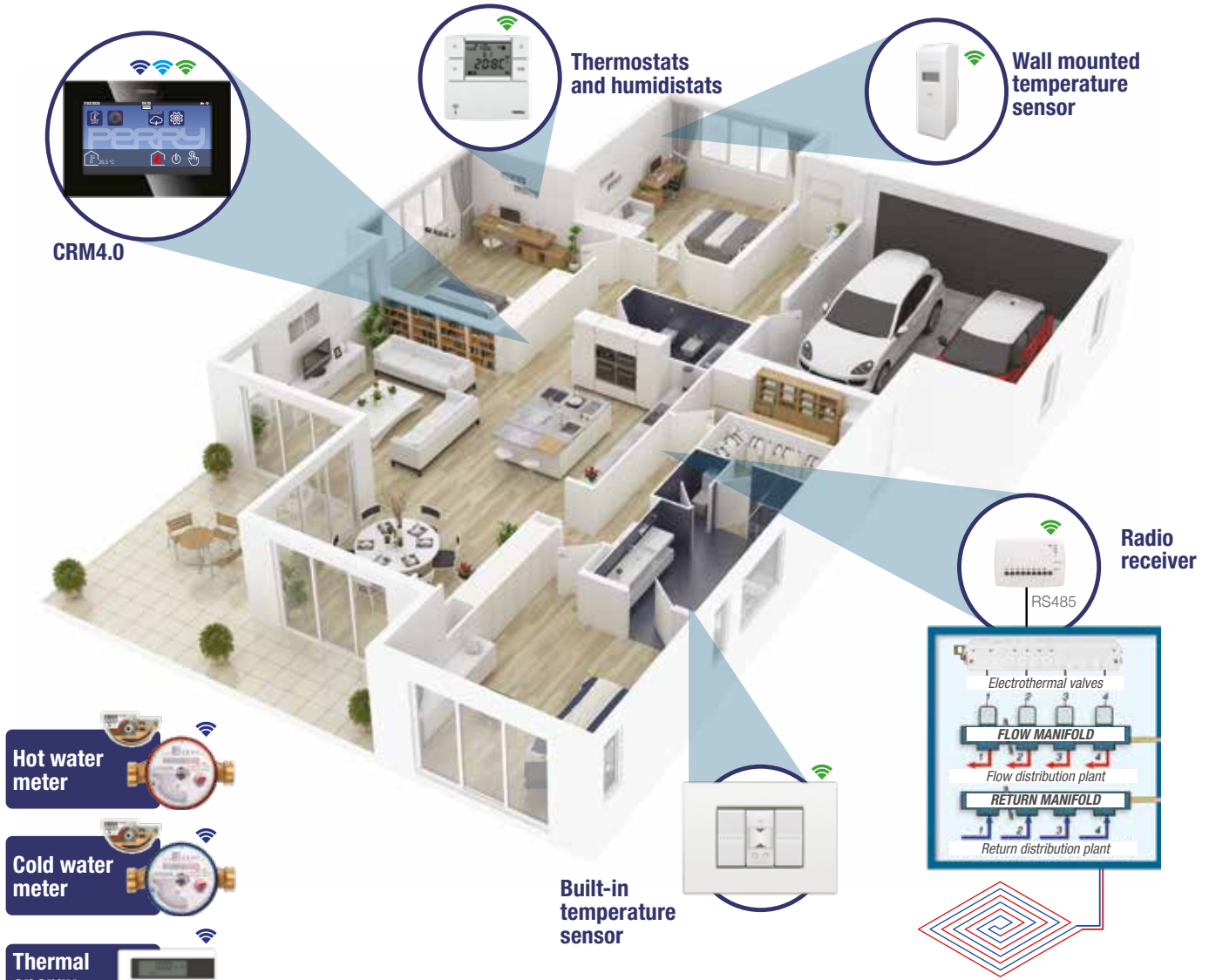
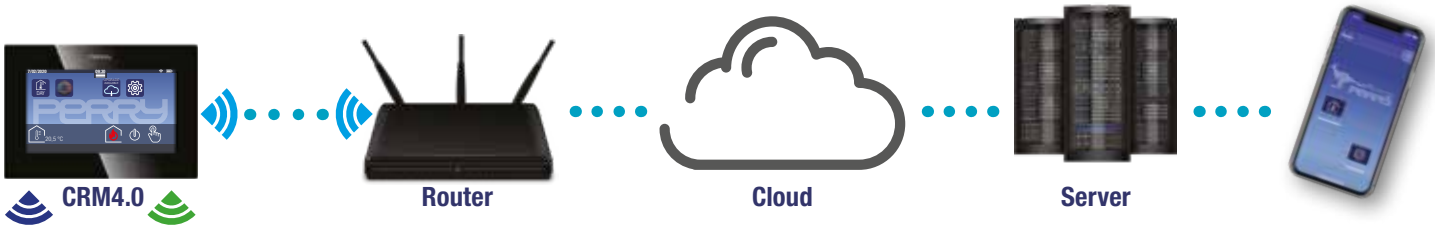
### Zone 3

- Built-in temp. sensor
- Wall mounted temp. sensor
- Thermostat
- Humidistat

# PROGRAMMABLE THERMOSTAT MULTI-ZONE AND MULTIMEDIA

CRM4.0 can be programmed and controlled both on site and by remote via internet for the access to the cloud. The CRM4.0 868 MHz frequency allows to reach each side of your home.

## CLOUD WEB CONNECTION



## ON SITE CONTROL

## REMOTE CONTROL



### Legenda

- Wi-Fi
- RF 868Mhz
- M-BUS radio
- BUS RS485
- Hot and cold water



CRM4.0.0 is able to thermoregulate any type of installation



System complying the **European Directive 2014/53/EU (RED)**



## THERMOREGULATION

Wireless thermoregulation of each room or per zones

CRM4.0 can manage up to a maximum of 8 zones and 16 actuators.



With **CRM4.0** or smartphone you can regulate the temperature of each room or zone.

SENSORS

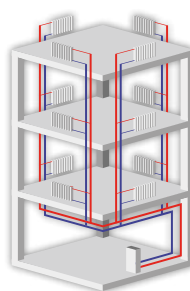


ACTUATORS

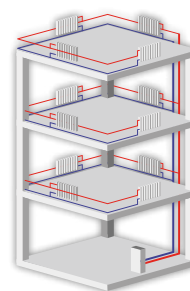


Suitable for all types of installation with any type of system

### EXISTING SYSTEMS

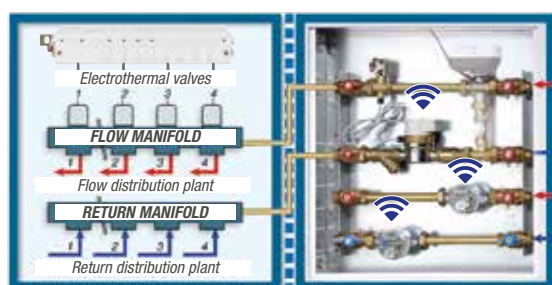


Riser systems



Ring systems

### RENOVATED OR NEW INSTALLATIONS WITH ZONE HEATING



### RENOVATED OR NEW INDEPENDENT HEATING INSTALLATIONS



1DO CRM032WIFI

1DO MTE01

BOILER

CRM4.0 is a user friendly system, easy to manage for all types of users.

## THERMOREGULATION MENU ON CRM4.0



Overview of temperatures regulation



Overview of time profiles and temperature sets



1 operation

2 operations

3 operations



Thermal season selection

By selecting, it changes the management from heating to air conditioning



summer



winter

## EASY MODE



To simplify, it is also possible to activate a practical and simple function called "EASY MODE".

CRM4.0 will autonomously perform the necessary procedures to obtain the optimal thermal comfort desired in each zone.

## QUICK FUNCTIONS



CRM4.0 is equipped with a drop-down menu which can be recalled by scrolling from top to bottom.

From this menu with rapid selection the user can access the most used functions to control the entire system:

- IN/OUT function
- Holiday function
- Cleaning function



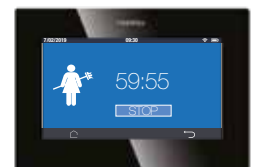
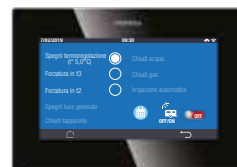
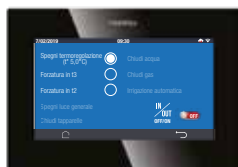
In/Out



Holiday

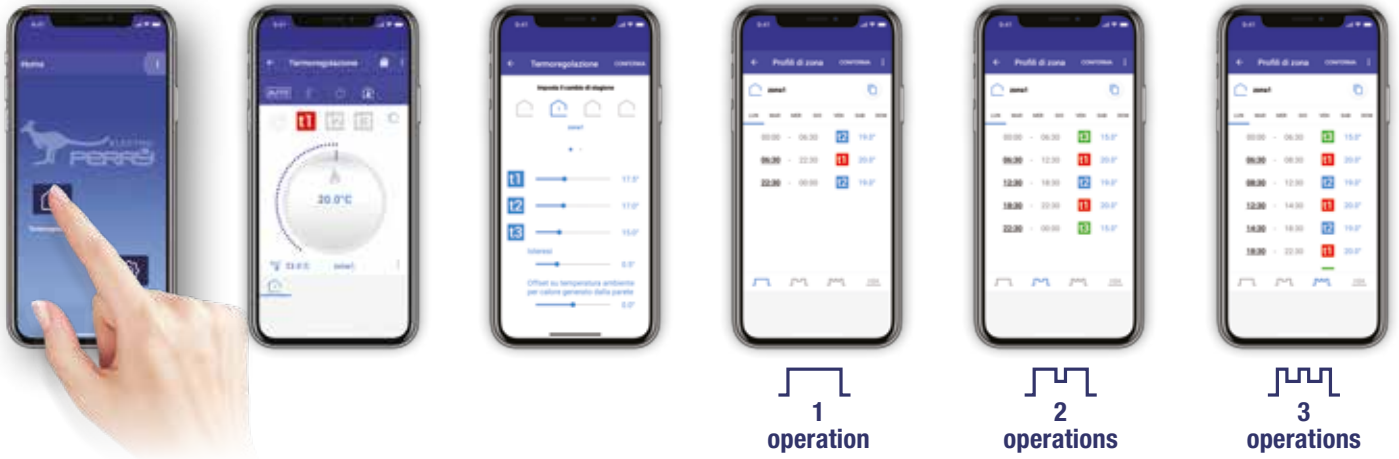


Cleaning



"Special functions" allow scenarios when cleaning, when leaving or entering the house, or when scheduling vacation times. Everything can be controlled quickly from the CRM4.0 or smartphone.

# THERMOREGULATION MENU ON SMARTPHONE



1 operation  
2 operations  
3 operations

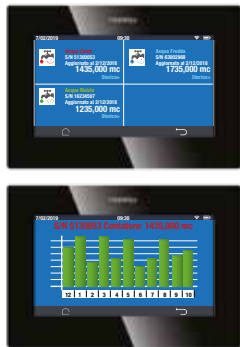
**EASY MODE**      **QUICK FUNCTIONS**



By selecting, it changes the management from heating to air conditioning



# CONSUMPTION DISPLAY



# ALEXA VOCAL ASSISTANT



“Alexa, read the temperature zone ....”

“Alexa, activate automatic programming”

“Alexa, raise/lower zone temperature ....”

“Alexa, enable/disable cleaning function”

“Alexa, sets zone temperature ....”

“Alexa, turn on/off everything”

“Alexa, read the set temperature of the zone ....”

“Alexa, turn ON/OFF everything” (IN/OUT function)

## MULTI-ZONE MULTIMEDIA PROGRAMMABLE THERMOSTAT COMMON FEATURES CRM 4.0

- Power supply 230V AC 50Hz/5Vdc included in the package
- 4.3" TFT color scrolling touch screen display
- No. 8 programmable zones for hourly profiles on 4 temp. levels
- Zone programming: daily and weekly
- Communication systems: Wi-Fi for internet connection; Wireless RF 868 Mhz for communication with ancillaries; MBus Radio; Bus RS485
- Calculation of the anti-condensation dew point
- Temperature setting range +4°C ÷ +39°C
- Connection range 30 ÷ 120 m in relation to the wall structure and obstacles inside the rooms
- Accuracy ±0.5 °C
- Gradient 1°K / 15 min
- Regulation type: modulating or ON/OFF
- IP30
- Operating temperature -5°C ÷ +55 °C
- Storage temperature -5°C ÷ +55°C
- Dimensions (L x W x H) 128.5 x 26 x 88.5 mm



### 1DO CRM031WIFI Wall-mounted multi-zone programmable thermostat with display

- Wired relay output 5(3)A 250V AC.
- Wi-Fi
- Frequency RF 868 MHz
- MBus Radio (Reading meters compatible)
- Input remote temperature probe 1PA STE02 usable as 2nd zone
- Wall installation



### 1DO CRM032WIFI Wall-mounted multi-zone programmable thermostat with display and BUS 485 connection for distribution box and/or single boiler

- BUS RS485 Output for actuator connections
- Wi-Fi
- Frequency RF 868 MHz
- MBus Radio (Reading meters compatible)
- Input remote temperature probe 1PA STE02 usable as 2nd zone
- Wall installation



### 1DO MTE01 Advanced thermoregulation module for 1DO CRM032WIFI for single boiler

- Suitable for boilers with OpenTherm protocol 2.2 (evolved thermoregulation Class V)



### 1DO CRM033WIFI Multi-zone desktop programmable thermostat with display

- Wi-Fi
- Frequency RF 868 MHz
- MBus Radio (Reading meters compatible)
- Table installation



### 1DO TETX05 Wall-mounted RF zone thermostat, IP30

- Power supply 2x1.5V AA type batteries - Alkaline
- 2 1/3 digital LCD display
- Bidirectional RF868 MHz wireless radio connection
- Connection range 30 ÷ 120 m
- Temperature adjustment range +4 ÷ +39 °C
- Accuracy ± 0.5 °C
- Gradient 1 ° K / 15 min.
- Type of regulation: modulating or ON / OFF
- Autonomy about 2 years
- Dimensions (L x W x H) 84 x 23 x 84 mm



### 1DO STX01 RF ambient wall temperature probe, IP30

- Power supply 2x1.5V AAA - Alkaline batteries
- 5 digit TRH LCD display with temperature signaling environment, low battery, offset, background noise
- Bidirectional RF868 MHz wireless radio connection
- Connection range 30 ÷ 100 m
- Measuring range -30 ÷ +70 °C
- Accuracy ± 0.1 °C
- Gradient 1 ° K / 15 min.
- Autonomy about 3 years
- Wall installation
- Dimensions (L x W x H) 40 x 95 x 23 mm



### 1DO STX03A Built-in RF room temperature probe in 1 civil module, anthracite color, IP40

### 1DO STX03B Built-in RF room temperature probe in 1 civil module, white color, IP40

- Power supply 230V a.c.
- Bidirectional RF868 MHz wireless radio connection
- Connection range 30 ÷ 100 m
- Measuring range -30 ÷ +70 °C
- Accuracy ± 0.1 °C
- Gradient 1 ° K / 15 min.
- Installation of 1 civil module in flush-mounted box
- Dimensions (L x W x H) 40 x 95 x 23 mm



### 1DO RXTEUM01 Wall-mounted combined temperature + relative humidity probe, IP30

- Power supply 2x1.5V AA type batteries - Alkaline
- 2 1/3 digital LCD display
- Bidirectional RF868 MHz wireless radio connection
- Connection range 30 ÷ 120 m
- Temperature adjustment range +4 ÷ +39 °C
- Relative humidity % adjustment range from App
- Accuracy ± 0.1 °C
- Gradient 1 ° K / 15 min.
- Autonomy about 3 years
- Dimensions (L x W x H) 84 x 23 x 84 mm

**1DO VTRX05      Electronic valve for radiators with 868.35Mhz radio transceiver, IP40**

- Power supply 3V 2x1,5V AA batteries - Alkaline
- Built-in room temperature probe
- Operation with ON / OFF or modulating intervention
- Autonomy about 12 months depends on the daily operations
- Max pushing force in closing 8 Bar
- Compatible with thermostatic valves with PN (Nominal flow rate) 8 Bar and ΔP (differential) 1 Bar
- Battery charger and / or anomalies indication
- Dimensions (L x Ø) 85.5 x 53 mm

**1DO VTRX04      Electronic valve for radiators with 868.35Mhz radio transceiver**

- Power supply 3V 2x1,5V size C alkaline
- ON/OFF or modulating operation
- IP40
- Autonomy 36 months based on daily intervention
- Max pressure in closing 10 Bar
- Compatible with thermostatic valves with PN (Nominal flow) 10 Bar and Δ P (differential) 1 Bar
- RF signal level indicator
- Faulty and / or battery charge indicator
- Dimensions (L x W x H) 62 x70 x 97 mm



- 1PA ASVT01      Angle adapter for electronic valves on radiator VTRX04**
- 1PA CA02VT      Tamper-proof seal for electronic valves on radiator VTRX04**
- 1PA CA03VTF      Female unscrewing collar for electronic valves on radiator VTRX04**
- 1PA CA03VTM      Male unscrewing collar for electronic valves on radiator VTRX04**

**1DO RTX01DO      Radio transceiver 1 channel 230V a c**  
**1DO RTX02DO      Radio transceiver 2 channels 230V a c**

- Power supply 230V a.c. 50 ÷ 60 Hz
- Bidirectional wireless radio RF868 MHz connection
- 1DO RTX01DO 1 changeover contact output 5(2)250V a.c. 1-↔-↔
- 1DO RTX02DO 2 changeover contacts output 5(2)250V a.c. 2-↔-↔ + 1-↔-↔ pump
- ON /OFF operation
- Connection range 30 ÷ 120 m
- IP30
- Wall mounting
- Dimensions (L x W x H) 133 x 90 x 25 mm

**1DO RTX0801DO 8-zones radio transceiver + 1 circulation pump output**

- Power supply 18V a c (from the control box)
- BUS RS485 output
- Bidirectional wireless radio RF868 MHz connection
- Connection range 30 ÷ 120 m
- Insulation class III
- IP30
- Wall mounting
- Dimensions (L x W x H) 133 x 90 x 25 mm

**1DO BC0400      4 zones control box**  
**1DO BC0800      8 zones control box**

- Power supply 230V a.c. 50 ÷ 60 Hz
- Contacts output 8(2)A 250V a.c.
- BC0400 4 polarized NO/NC contacts ↔-↔ + 1-↔-↔ pump
- BC0800 8 polarized NO/NC contacts ↔-↔ + 1-↔-↔ pump
- IP 52 with rubber cable glands
- Insulation Calss II
- Box, wall, with brackets installation
- Dimensions (L x W x H) 273 x 69 x 76 mm

**1PA PPBC01      Cable glands for control boxes**  
**11SE AEDS      Electro-thermal actuator for thermostatic valve 230V NC****ACCESSORIES**

- 1DO SWCDM01      C.DOM Manager Software to control CRM4.0 from PC**
- 1PA STE02      NTC temperature probe with 4 m cable for 1DO CRM031WIFI and 1DO CRM032WIFI**
- 1PA BTTEX01      Table base for 1DO TETX05 and 1DORXTEUM01**
- 1PR PSA01      Replacement batteries for TETX05, RXTEUM01, VTRX05**
- 1PR PMS01      Replacement batteries for STX01**
- 1PR PMT02      Replacement batteries for VTRX04**
- 1VA ROUTER002      Router LTE/4G with batteries**

**NOTE**

- 1) For the installation of CRM4.0 it is essential to have a Wi-Fi network. In case not available, use item 1VA ROUTER002 for the installation.
- 2) The configuration (first installation) of CRM4.0 with ancillaries: temperature probes, thermostats, humidistats, radio receivers, VTRX04, VTRX05; is possible only with Android Smartphones.

## COMPACT MECHANICAL ENERGY METERS



### 1DO CC15R03

Hot/cold mechanical energy meter DN15, M-BUS radio reading

### 1DO CC25R03

Hot/cold mechanical energy meter DN20, M-BUS radio reading

- Inductive bidirectional scanning single jet meter
- Reverse flow detection
- Temperature measurement cycle 2-60 sec.
- Installation in output
- Horizontal/vertical installation
- Temperature probes Pt1000 with cable length 1,5 meters
- Directive 2004/22/EC (MID MI-004) and in compliance with EN 1434

### ELECTRONIC UNIT

- Replaceable 3V lithium battery, useful life 10 years
- Removable electronic unit, cable length 50 cm
- Protection class: IP65
- Operating temperature 5-55°C
- 8 digits LCD display (up to 3 decimal places)

CODE	Nominal flow rate Qp (m3/h)	DN	External thread	Length (mm)	PN (bar)	Max. flow rate Qs (m3/h)	Min. flow rate Qi (l/h)	Pressure drop Δp at Qp (bar)	Pressure drop Δp at Qs (bar)	Heat temp. range (°C)	Refrigeration temp. range (°C)
1DO CC15R03	1,5	15	G3/4"B	110	16	3	60	0,2	0,84	15 - 90	5 - 90
1DO CC25R03	2,5	20	G1"B	130		5	100	0,17	0,675		

## COMPACT ULTRASONIC ENERGY METERS



### 1DO UL1520R01

Compact hot/cold ultrasonic energy meter DN15, M-BUS radio reading

### 1DO UL3525R01

Compact hot/cold ultrasonic energy meter DN20, M-BUS radio reading

- Reverse flow and air presence detection
- Measuring element with no moving parts
- Installation possible in all positions in output
- Straight sections not required
- Pt1000 temperature probes with 1.5 m cable length
- MID 2004/22/EC certification (EN 1434), class 2

### ELECTRONIC UNIT

- Replaceable 3V lithium battery, service life 10 years
- Removable electronic unit, cable length 85 cm
- Protection class: IP65
- Operating temperature 5-55°C
- 8-digit LCD display (up to 3 decimal places)
- Memory of max. flow rate and power values

CODE	Nominal flow rate Qp (m3/h)	DN	External thread	Length (mm)	PN (bar)	Max. flow rate Qs (m3/h)	Min. flow rate Qi (l/h)	Pressure drop Δp at Qp (bar)	Pressure drop Δp at Qs (bar)	Heat temp. range (°C)	Refrigeration temp. range (°C)
1DO UL1520R01	1,5	15	G3/4"B	110	16	3	0,015	0,21	0,85	15 - 90	5 - 90
1DO UL3525R01	3,5	20	G1"B	130		7	0,035		0,885		

## ACCESSORIES

1DO 131205002

1DO 131207002

Fitting set DN20 3/4"x1/2" for heat meters CC15 / UL15

Fitting set DN25 1"x3/4" for heat meters CC25 / UL35

## HOT/COLD SANITARY WATER METERS



- 1DO CACS2503**  
Domestic hot water meter DN15 connections 80 mm, M-BUS ready
- 1DO CACS2502**  
Domestic hot water meter DN15 connections 110 mm, M-BUS ready
- 1DO CACS4002**  
Domestic hot water meter DN20 with 130 mm connections, M-BUS ready
- 1DO CAFS2503**  
Domestic cold water meter DN15 connections 80 mm, M-BUS ready
- 1DO CAFS2502**  
Domestic cold water meter DN15 connections 110 mm, M-BUS ready
- 1DO CAFS4002**  
Domestic cold water meter DN20 with 130 mm connections, M-BUS ready

- Single jet meter and dry dial
- Magnetic drive
- 360° rotating cover
- Condensation-proof dial
- MID 2004/22/CE Approved Range 160-H and 50 -V
- Certified for use with drinking water (D.M. 174)

CODE	Nominal flow rate Qp (m <sup>3</sup> /h)	DN	External thread	Length (mm)	PN (bar)	Maximum flow rate Qs (m <sup>3</sup> /h)	Minimum flow rate Qi (l/h)	Operating temperature (°C)	Pulse value (l)	Min. reading (l)	
<b>1DO CACS2503</b>	2,5	15	G¾" B	80	16	3,13	25	water 90°C	-	0,05	
<b>1DO CACS2502</b>				110							
<b>1DO CACS4002</b>	4,0	20	G1" B	130		5,0	40		-	0,05	
<b>1DO CAFS2503</b>	2,5	15	G¾" B	80		16	3,13	25	water 50°C	-	0,05
<b>1DO CAFS2502</b>				110							
<b>1DO CAFS4002</b>	4,0	20	G1" B	130			5,0	40		-	0,05



### 1DO MBR03 MBR03 M-BUS radio transmitter module for M-BUS-ready meters

- Transmission of consumption data relative to the last 15 month-ends
- Protection degree: IP68
- Automatic radio activation
- The installation of the M-BUS radio module must be simultaneous with the installation of the water meter



### ACCESSORIES

- 1PE1 BOX01** Containment box for flush-to-wall installation CACS/CAFS meters L = 80 mm
- 1PE1 CCR01** Round chromed cover for flush to wall installation CACS/CAFS meters L = 80 mm
- 1PE1 CCQ01** Square chromed cover for flush to wall C installation ACS/CAFS meters L = 80 mm

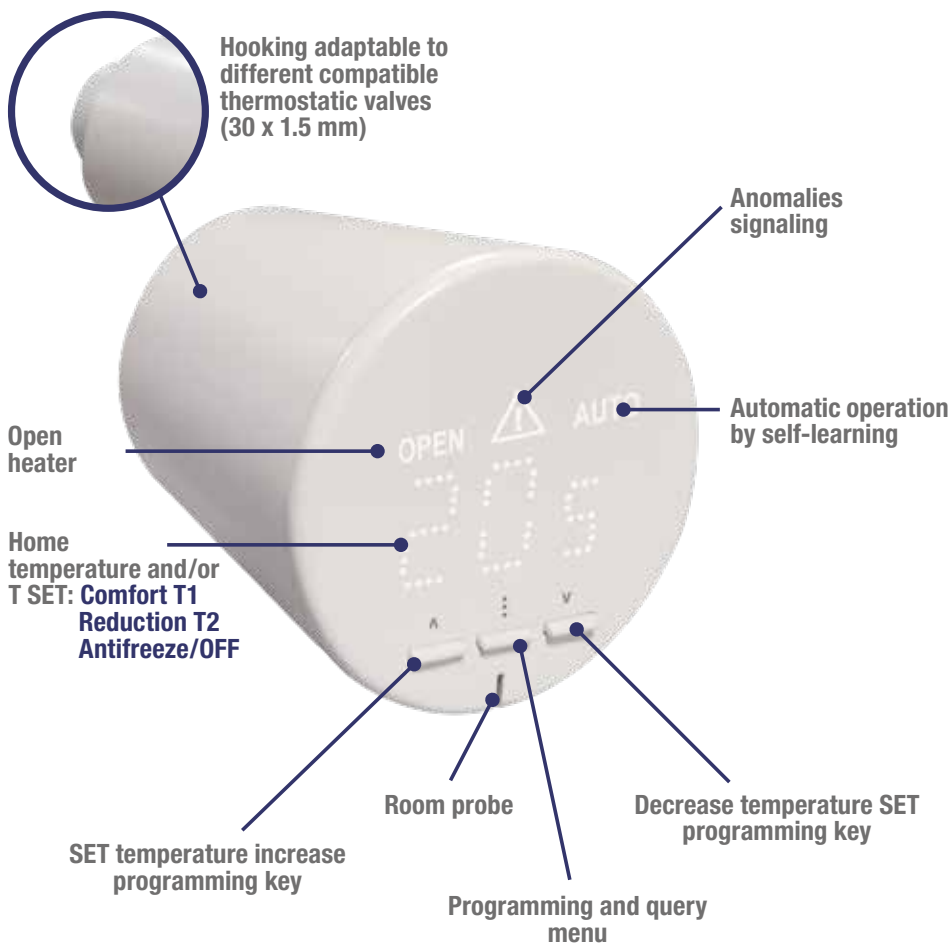
## VTRX05 INTELLIGENT ELECTRONIC VALVE FOR RADIATORS AND TOWEL WARMERS

The most advanced and efficient answer for the thermoregulation of every radiator.

The **VTRX05** intelligent electronic valves installed in radiator systems can be associated to **CRM4.0** for the realization of multimedia multizone systems and/or installed stand alone on radiators/towel warmers of the house.

The **VTRX05** installed stand-alone allow to turn on radiators with precise regulation of temperature set T1 (comfort temperature), T2 (reduction temperature) through the valve frontal buttons.

The **VTRX05**, equipped with intelligent self-learning, regulate the hourly periods of comfort (T1) and reduction (T2) according to the trend of life of the user thus assuming the function of daily programmable thermostat applied to each radiator of the house.



### TECHNICAL NOTE

**VTRX05** is realized with hardware and firmware solutions that allow to reduce the natural difference between temperature measured by VTRX probe and real room temperature.

Moreover, through the valve menu it is possible to access the off-set function for further adjustments between the value read by the VTRX temperature probe and the real room temperature.

The **VTRX05** valve is realized with modulating operation of the thermostatic valve to minimize the energy consumption of each radiator.

The stand-alone installation of the intelligent electronic valve **VTRX05** is easy to use for the reduction of energy consumption from heating of:

- Radiators and towel warmers installed in apartments
- Radiators installed in public places: offices, stores, schools, etc.
- Radiators installed in hotel rooms, RSA, etc.



# INDIRECT METERING

## NEW ALLOCATORS OMS COMPATIBLE



**1SE100301**  
GIUSTO-100N2 allocator



**1SE100302**  
GIUSTO-100NE2 allocator

### 1SE100301 - GIUSTO-100N2 ALLOCATOR

OMS compatible allocator for displaying the heat consumption units of the radiator.

Safe and precise, applied on each radiator, it allows the precise calculation of consumption thus obtaining a quantification of the thermal consumption and, consequently, of the costs.

The transmission of the daily consumption data is sent to the receiving device together with the consumption of last 7 days and consumption of the last 12 months.

The Giusto-100N2 allocator can provide for two-way communication for the fifteen days following installation in order to allow parameterization at a later time without necessarily having to access the home. After 15 days or immediately after parameterization, it switches to OMS compatible one-way.

The allocator is approved according to the European standard EN834 and is powered by long-lasting batteries.

### 1SE100302 - GIUSTO-100NE2 ALLOCATOR

Electronic heat cost allocator equipped with a remote probe suitable in case of convectors, radiators covered by radiator covers and / or various obstructions.

The device is fixed to the wall following the specifications of the legislation while the external probe is fixed on the heating body.

Included in the package:

- zamak plate with remote probe
- 2 screws and 2 fischer
- 1 seal and 1 anti-burglary label
- 1 small lid
- 2 plastic clamps

## CONSULTATION OF CONSUMPTION DATA

The “ticks” relating to consumption are displayed thanks to the clear parameterization of the heat cost allocator on the basis of the heat output and the type of heating body.

The reader acquires consumption data in WBF through a WSL868 key and EQUO software or, alternatively, through a remote reading thanks to floor control units and master control unit which autonomously posts the data on the server.

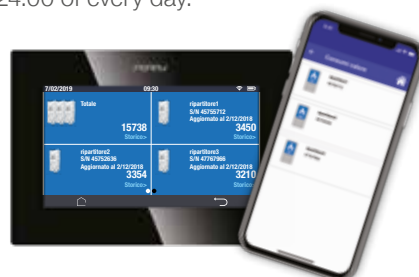
As per the recent regulations that suggest periodic consultation of the consumption data, the WEB portal is available which draws from the server the data and makes them easily accessible to the system manager, the condominium administrator and the individual condominium. The portal allows viewing consumption of heating and consumption of cold and domestic hot water, facilitating the perception of the trend through graphic representations expense by the User.

## INDIRECT METERING COLLECTIONG DATAS WITH CRM4.0

The allocators GIUSTO-100N2 and GIUSTO-100NE2 combined with CRM4.0 allow the reading of the consumption data on Smartphone and Tablet with updated data at 24:00 of every day.



**CRM4.0 can read up to a maximum of 16 allocators**



**Reading the daily saved consumption data received from all allocators connected to CRM4.0.**



**Graphic reading of the consumption trend of the single device.**

## FIXING ACCESSORIES

CODE	DESCRIPTION
2SE007KTS	Standard fixing kit for 1SE100301: 1 zama plate, 2 trapezoidal anchor, 2 screws TC m4x40
2SE100202	TAMPER-PROOF SEAL for 1SE100301, package 50 pcs.
2SE100302	WIDE 55 ALUMINIUM PLATE - 55 mm wide - package 10 pcs. (for 1SE100301 order separately 2SE100304)
2SE100303	WIDE 88 ALUMINIUM PLATE - 88 mm wide- package 10 pcs. (for 1SE100301 order separately 2SE100304)
2SE100304	STANDARD ZAMA PLATE - 10 pcs. for 1SE100301
2SE100401	STANDARD TRAPEZOIDAL ANCHOR - 35 mm wide on long side - package 50 pcs.
2SE100402	WIDE 50 TRAPEZOIDAL ANCHOR - 50 mm wide on long side - package 20 pcs.
2SE100403	SHAPED ANCHOR P.45 - distance between pipe (pitch) 45 / 46 mm - package 20 pcs.
2SE100404	EXPANSION CORNER - the package includes the expansion corners, M4 hex nuts and M4 x 35 cylinder head screws
2SE100405	M3 THREADED PLATE 16x6x4 - for M3 screws - package 50 pcs.
2SE100407	M4 THREADED PLATE 30x6x6 - for M4 screws - package 50 pcs.
2SE100701	M3 FLANGED HEX NUT - package 100 pcs.
2SE009KTS	Metal clamp kit composed by: a 1 meter metal belt, 4 steel heads with screw, 4 washers, 4 Yellow tamper-proof seals, 4 M3 nuts and 4 studs M3x10
2SE008KTS	U-Bolt kit composed by: 1 U clevis, 4 nuts M3 and central aluminium body
2SE100601	Self-Tapping Screw. Made of galvanized iron, cylindrical head 2.9 x 25 mm - package 100 pcs.
2SE100602	Self-Tapping Screw. Made of galvanized iron, cylindrical head 3.9 x 25 mm - package 100 pcs.
2SE100610	Self-Tapping Screw. Made of galvanized iron, cylindrical head 4.2 x 16 mm - package 100 pcs.
2SE100603	Self-Tapping Screw. Made of galvanized iron, cylindrical head 4.8 x 25 mm - package 100 pcs.
2SE100608	Self-Tapping Screw. Made of galvanized iron, cylindrical head 5.5 x 25 mm- package 100 pcs.
2SE100501	M3 X 10 welding stud- package 100 pcs.
2SE100502	M3 X 20 welding stud - package 100 pcs.
2SE100604	M3 x 30 cylindrical head screw - package 100 pcs.
2SE100606	M4 x 40 cylindrical head screw - package 100 pcs.
2SE100607	M4 x 60 cylindrical head screw - package 100 pcs.
2SE100609	M4 x 100 cylindrical head screw - package 100 pcs
2SE100900	Special Meter specially studied for a safe and easy identification at the 75% high of the heating body.
2SE100800	Pattex two-component adhesive 2K tube Metal
2SE002KTS	Fixing kit for use of two-component adhesive on 1SE100301 comprehensive of: 1pc. standard aluminum plate with 2pcs. M3x10 studs. Order separately: 2pcs. M3 hex nuts, 1pc. tamper-proof seal ( 2SE100201 or 2SE100202 based on allocator model) and 1pc. standard zama plate (2SE100304) if for 1SE100301 - 10 pcs.
2SE003KTS	Fixing kit for use of two-component adhesivefor 1SE100301 comprehensive of: 1pc. 55 wide aluminum plate with 2pcs. M3x10 studs. Order separately: 2pcs. M3 hex nuts, 1pc. tamper-proof seal (2SE100201 or 2SE100202 based on allocator model) and 1pc. standard zama plate (2SE100304) if for 1SE100301 - 10 pcs.
2SE004KTS	Fixing kit for use of two-component adhesive for 1SE100302 comprehensive of: 1pc. standard aluminum plate with 2pcs. M3x10 studs. Order separately: 2pcs. M3 hex nuts,1pc. tamper-proof seal - 10 pcs.
2SE005KTS	Fixing kit for use of two-component adhesive for 1SE100302 comprehensive of: 1pc. 55 wide aluminum plate with 2pcs. M3x10 studs. Order separately: 2pcs. M3 hex nuts, 1pc. tamper-proof seal - 10 pcs.



## CONCENTRATOR OF THE FLOOR

### 1SE100901 RETE-1000R landing repeater 3v battery operated

- The landing control unit to collect via radio and the transmit data concerning the consumption of a number of apartments to the concentrator gateway with GPRS modem.
- A concentrator can be installed each 2-3 floors, depending on the geometry of the building and the actual radio range obtainable.
- The concentrator as per set schedule collects the readings from all radio devices and sends them to the concentrator with GPRS modem.



## CONCENTRATOR GPRS

### 1SE100902 RETE-1000RG concentrator with GPRS modem 230v a.c

- Concentrator with built-in GPRS modem
- It allows the communication of consumption together with any faults and tampering to the service center
- A concentrator with GPRS modem is installed for each building or staircase, depending on the geometry of the building and the actual radio range obtainable
- Network configuration of the landing repeater NODO-100R, by EQUO Software
- With scheduled readings, it reads the devices of its radio area, stores data and send them to the service center
- Compatible only with SIM M2M Vodafone (check with other operators)
- Dimensions L x P x H mm: 210x200x50



## AMBIENT TEMPERATURE RECORDER

### 1SE100911 CALDO-200R temperature logger

- It detects the ambient temperature and calculates the medium value of the detected temperatures read on three time slots.
- The device stores every day the three medium temperature T1, T2, T3 for a period of 18 months
- The stored data read via radio from the outside of the building by WSL key 1SE100801 / WSL key 1SE100802 with communication secured by password. Alternatively, with control units Nodo-1000R / Nodo-1000RG / Nodo-1001ME if the installation is equipped.
- Equipped with anti-tampering system.

EQUO It's a software to carry out the measurement of the thermal power installed in a condominium, parameterizes the allocators and pulse counters, reads the seasonal consumption and allocates the heating costs. It is easily installed on a standard PC and interacts via radio with the WSL Key for reading and managing the allocators. EQUO is not available for Apple computers.

The reading and management of the allocators can be performed remotely through the installation of repeaters and concentrators RETE-1000R, RETE-1000RG. It is available in 3 versions:



## **1SE 101201 EQUO PROFESSIONAL**

For thermo-technical professionals

- Selection heater and input heater data
- Design of heat regulation components (valves, heads, lockshields)
- Determine the installed power
- Determine the parameters to set in the allocators
- Generate the report of the installed thermal power for the certification by authorized technical personnel
- Calibrate the presetting of the thermostatic valves

Allows you to store neatly the data for the calculation of the power of radiators, evaluated according to the UNI EN 442:2004 (manufacturer's data archive), imputes, eventually, the power of the intake pipes flow and return; stores the data of the valves and lockshields. Suited to detect the total power of the apartment with detail of single radiator, the thousandths craft of the power installed, the total power of the system. Processes data to perform the calibration of pre-adjustable valves.

## **1SE 101202 EQUO ENTERPRISE**

For allocation service manager

- Manage user details
- Acquisition of faults on allocators and pulse counters via radio
- Read data, via radio, memorized by allocators and pulse counters
- Consumption validation
- Individual allocation of the heating costs
- Generation of allocations reports in PDF and EXCEL

It has the features of the Professional version and in addition it reads the data via radio of the heat cost allocators, allows the validation of consumption for periods (season, monthly) and allows the use of different algorithms to estimate any missing consumption. In the cost allocation phase, it allows you to produce a detail of the relevant expenses divided into expenses for thermal power used and expenses according to consumption, according to the UNI 10200 sector technical standard. The UNI10200 cost allocation module also provides for the presence of heat meters direct and domestic hot water meters.

## **1SE 101203 EQUO FULL**

For installers

EQUO FULL offers the functionalities of the 2 versions above and also allows the installation and the maintenance of allocators and pulse counters, the local and remote parametrisation as well as protection enabling of the system.



## **1SE 100801 WSL small key**

(Wireless Serial Link) for radio communication from the landing of the building between laptop and allocators / pulse counters via EQUO software. Necessary to carry out readings onsite and to manage the devices. The key allows up to 10.000 parameterizations.

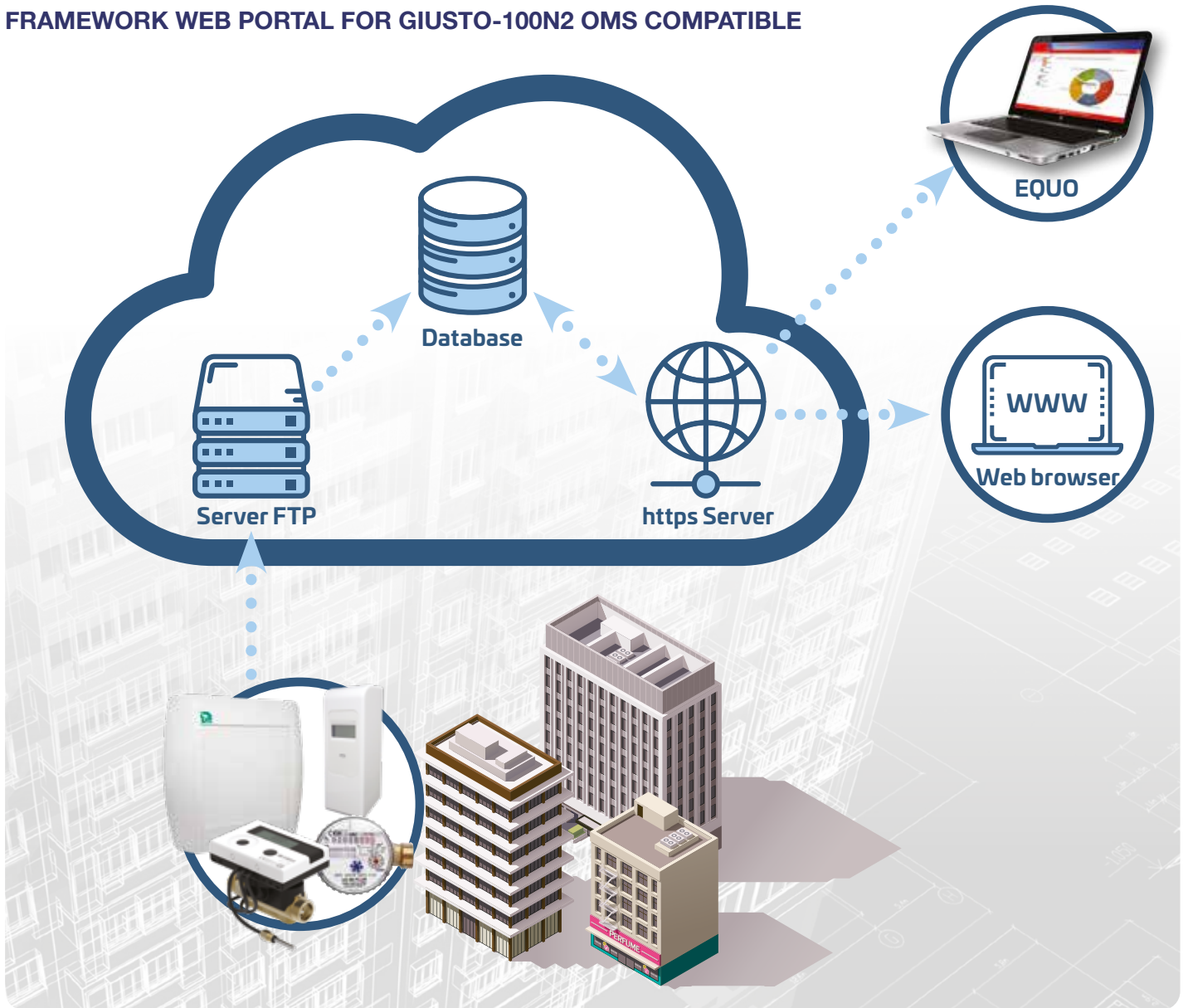


## **1SE 100802 WSL key**

(Wireless Serial Link) for radio communication from the outside of the building between laptop and allocators / pulse counters via EQUO software. Necessary to carry out readings onsite and to manage the devices. The key allows up to 10.000 parameterizations.

## **1SE 100809 Replacement antenna for WSL key**

## FRAMEWORK WEB PORTAL FOR GIUSTO-100N2 OMS COMPATIBLE



### FEATURES

As for the current standards, with the aim of making the data available to the user in a clear and transparent way, the Web portal is born. The read data from the various metering devices are acquired with Nodo-1000R and Nodo-1000RG control units on a monthly basis. The infrastructure, designed to automatically post data on the FTP server, allows, once the web portal is activated, periodic consultation of the relevant consumptions.

The portal allows to be viewed:

- Heating Indirect consumptions measured with GIUSTO-100N2 / GIUSTO-100NE2
- Heating Direct consumptions measured with compact energy meter
- Consumption of domestic hot and cold water

The portal framework is designed to provide different information and different levels of interaction to the three intended user profiles: Apartment, Building Manager, Heat Manager

The profiles are specified below:

#### USER Apartment (Apartment owner)

Logging into the web portal, this user can view the latest readings, the historical readings and the consumption trend of their own apartment.

#### USER Building Manager (Building Administrator)

Logging into the web portal, this user can manage several Apartment users. In particular, the Building Manager user can view the latest readings, the historical readings and the trends of the accounting devices of all condominiums managed by this user

#### USER Heating Manager

Logging into the web portal, this user manages the Building Manager and Apartment users. The Manager user has all the write and read privileges.

- Programmable thermostat connected to internet. It's programmable and readable by smartphone, tablet e PC.
- Expandable (up to 30 devices, included max 1 energy meter) for zone valves control.



## 1TX CR028WIFIKIT

**Starter kit: 1 Wi-Fi programmable thermostat 1TX CR028WIFI + 1 Smartbox 1TX RX01WIFI**

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

The ready-to-use solution to adjust the temperatures of your home directly from your smartphone. The kit includes the 1TX CR028WIFI chronothermostat and the Smartbox 1TX RX01WIFI.



Backlit display

## 1TX CR028WIFI - 3V

**Wi-Fi programmable thermostat 3V with radio receiver 868.35MHz, white color**

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 3V – 2x1.5V AA alkaline batteries
- Output: 1 potential free changeover contact: 5 (3) A / 250V a.c.
- 4.3" backlit LCD display
- Backlit buttons
- ON / OFF operation mode with adjustable differential from (0.2-0.3-0.5-0.7° C) or modulating (control period 10/15/20/25 minutes)
- Up to 10 daily programs
- Summer / Winter control
- Temperature adjustable by 0,5°C sets
- Minimum programming: 1 minute
- Holiday Program (energy saving)
- Pump activation program
- Timed backlighting
- Keyboard lock
- Wall mounting
- Dimensions (LxWxH) 128.5 x 88.5 x 26 mm

The programmable thermostat WI-FI **PERRY** powered by 3 V alkaline batteries (it doesn't need 230V), allows to change easily and quickly the traditional thermostats.



## 1TX RX01WIFI

**Smartbox 5V for Wi-Fi Programmable thermostat 3V with radio receiver 868.35MHz**

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 5V 350 mA (Powered by an external micro USB adapter)
- PCB antenna build in
- Connected via Ethernet cable RJ45 to the router (included)
- Dimensions (LxWxH) 102 x 35 x 77 mm

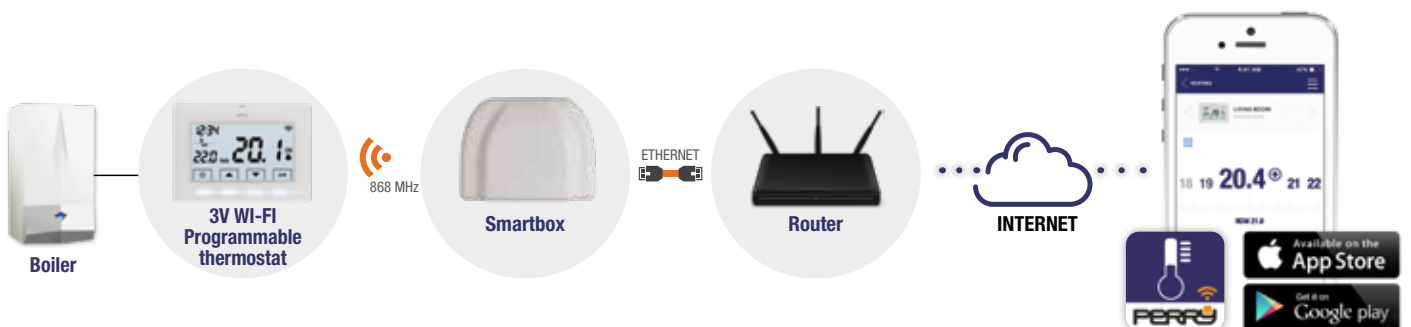


## 1TX ME01WIFI

**Power meter with radio receiver 868.35MHz - 1 DIN**

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 200-260V 50Hz
- PCB antenna build in
- Dimensions (LxWxH) 17,5 x 60 x 90 mm





Backlit display

### 1TX CR029WIFI - 230V

Wi-Fi programmable thermostat 230V with radio receiver 868.35MHz, white color

- Power supply 230V - 50Hz
- Output: 1 potential free changeover contact: 5 (3) A / 250V a.c.
- 4.3" backlit LCD display
- Backlit buttons
- ON / OFF operation mode with adjustable differential from 0.2 to 1,2°C or modulating (control period from 7 to 20 minutes)
- Up to 10 daily programs
- Summer / Winter control
- Temperature adjustable by 0,5°C sets
- Minimum programming: 1 minute
- Holiday Program (energy saving)
- Pump activation program
- Timed backlighting
- Keyboard lock
- Wall mounting
- Dimensions (LxWxH) 128.5 x 88.5 x 26 mm

### MULTI-INSTALLATION / MULTI-ZONE MANAGEMENT

To manage multiple devices in a home or in different systems.



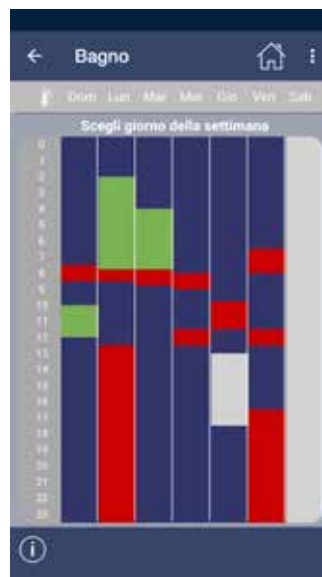
### TEMPERATURE SETTING

Simple and intuitive.



### WEEKLY PROGRAMMING

Up to 10 levels of temperature per day.



### VOICE ASSISTANTS

The new Perry Wi-fi programmable thermostat supports Alexa and Google Home. From now on, it will be easy to manage the home temperature.



### EASY TO INSTALL

The new programmable thermostat CR029WIFI simplifies the installation and configuration operations. Using the Perry APP the parameters of time, date and time programming synchronize in few seconds.



### ADVANCED SETTINGS

Temperature locks, offset, regulation for floor or traditional installation.



### GEOLOCATION

It allows, depending on the positions of the tenants, to lower or raise the temperature. It guarantees a considerable energy consumption.



### SHARING

App allows sharing the devices with other users (with setting limits). Function particularly useful in the family or in rented homes.





**1CR CR028A - Anthracite color - 3V**  
**1CR CR028B - White color - 3V**  
**1CR CR029A - Anthracite color - 230V**  
**1CR CR029B - White color - 230V**

**“NEXT” series menu driven weekly digital programmable thermostat**

- Multilanguage menu
- Power supply: 3V 2x1,5AA alkaline batteries (CR028)  
230V 50-60Hz (CR029)
- 4.3” backlit LCD display
- Output: 1 potential free changeover contact: 5(3)A/250V a.c.
- ON / OFF operation mode with adjustable differential from 0.2-1.2 ° C or modulating with control period from 7-20 min
- 4 preset modifiable programs
- Temperature levels: 3 + anti-freeze
- Independent manual temperature
- Temperature adjustable by 0,1°C sets
- Minimum programming: 30 minutes
- Temporary / permanent manual operation
- Automatic daylight saving time change
- Pausing for household cleaning
- Input for telephone programmer or remote contact
- Summer / Winter control
- Input for remote probe (CR028)
- Holidays program and pump activation program
- Temperature setting lock
- User / Installer password
- Backlighting: timed (CR028), timed and fixed (CR029)
- Relay status indicator
- Maintenance settings during blackout 48-hour (CR029)
- Temperature offset: adjustable according to product positioning
- Temperature setting range: 5 - 37.7°C
- Dimensions: (L x W x H) 128,5 x 88,5 x 26 mm

Keys lit in different colors depending on consumption



Backlit display



**1PA STE02 NTC temperature probe with 4 m cable, for CR028**

Detection probe with 2x1.5 mm<sup>2</sup> shielded cable - IP65 - Extendable up to max. 20 m.  
The probe allows temperature sensing in another room, underfloor or outside.

**Time and standard heating program are preset at the factory and can be modified by the user at any time**



**1CR CR017AG - Anthracite color - Daily**  
**1CR CR017BG - White color - Daily**  
**1CR CR018AS - Anthracite color - Weekly**  
**1CR CR018BS - White color - Weekly**

**“UP & DOWN Compact” digital programmable thermostat 3V series**

- Power supply 3V - 2x1.5V AAA alkaline
- 4” ½ LCD display
- 1 potential-free changeover contact output: 5(2)A/250V a.c.
- 10 Temperature levels + anti-freeze
- Minimum programming time 60 minutes
- Temperature offset: adjustable according to product positioning (winter / summer)
- Automatic daylight saving time adjustment
- Preset at the factory
- ON / OFF operation mode with adjustable differential switch or proportional with control period 7/10/13/20’
- 3 operation modes: intelligent / eco / optimised
- Temporary / permanent manual operation modes
- Autonomy: 12 months
- Holiday Program and pump activation program
- Pausing for household cleaning
- Temperature setting lock
- Keypad lock
- Password protection for access to keyboard
- Heating setting range: 15-17-18-19-20-20,5-21-22-23-24°C
- Cooling setting range: 20-22-23-24-25-26-27-28-32-36°C
- Dimensions (L x W x H) 133 x 26 x 90 mm



**1CR CR311B**  
**“SLIM” serie digital programmable thermostat**

- Multilanguage menu
- Power supply 3V - 2x1.5V AAA alkaline
- 1 potential-free changeover contact output: 5(2)A/250V a.c.
- ON / OFF operation mode with adjustable differential from 0.2-1.2 ° C or modulating with control period from 7-20 min
- 4 preset modifiable programs
- Temperature levels: 3 + anti-freeze
- Independent manual temperature
- Temperature adjustable by 0,1°C sets
- Minimum programming: 30 minutes
- Independent manual temperature
- Automatic daylight saving time change
- Summer / Winter control
- Holiday Program and pump activation program
- Pausing for household cleaning
- Temperature setting lock
- User / Installer password
- Autonomy: 12 months
- Relay status indicator
- Temperature offset: adjustable according to product positioning
- Temperature setting range: 5 - 37.7°C
- Dimensions: (L x W x H) 120 x 21 x 80 mm



**1CR CR308/G - Daily**  
**1CR CR309/S - Weekly**  
**“EASY” series digital analogue programmable thermostat 3V - white color**

- Power supply 3V - 2x1.5V AA alkaline
- 2” 2/3 LCD display
- 1 potential-free changeover contact output: 5 (3)A/250V a.c.
- ON / OFF operation with adjustable differential switch 0.3/0.5/0.7 0.9°C or adjustable proportional cycle 7/10/15/20 min
- Temperature adjustment on display
- Temperature levels 2 + anti-freeze fixed at 5°C
- Autonomy: 24 months
- Minimum programming 30 minutes
- Permanent manual operation
- Total ON / OFF function
- Temperature lock
- Telephone control input
- Temperature setting range: 5 - 37.7°C
- Dimensions (L x W x H) 121.5 x 31.5 x 82 mm



# THERMOSTATS - WALL MOUNTED



**1TP TE028A - Anthracite color - 3V**  
**1TP TE028B - White color - 3V**  
**1TP TE029A - Anthracite color - 230V**  
**1TP TE029B - White color - 230V**  
**“NEXT” series menu driven daily digital thermostat**



Backlit display

- Power supply: 3V 2x1,5AA alkaline batteries (TE028)  
230Vac 50-60Hz (TE029)
- Multilanguage menu
- 4.3” backlit LCD display
- Backlit buttons
- Output: 1 potential free changeover contact:  
5 (3) A / 250Va.c.
- ON / OFF operation mode with adjustable differential from 0,2 - 1,2 ° C or modulating with control period from 7 - 20’
- Temperature levels: 2 + anti-freeze
- Temperature adjustable by 0,1°C sets
- Pausing for household cleaning
- Input for telephone programmer or remote contact
- Input for remote probe (TE028)
- Summer / Winter control
- Pump activation program
- Temperature setting lock
- User password
- Installer password
- Backlighting: timed (TE028), timed and fixed (TE029)
- Relay status indicator
- Temperature offset: adjustable according to product positioning
- Wall mounting
- Temperature setting range: 5 - 37.7°C
- Dimensions: (L x W x H) 128.5 x 88.5 x 26 mm

## Keys lit in different colors depending on consumption



Below 18,0 °C the keys light up in green indicating low consumption



Between 18,1 °C and 21 °C the keys light up in blue indicating optimal consumption



Above 21,1 °C the keys light up in red indicating consumption over needs

## 1PA STE02 NTC temperature probe with 4 m cable, for CRO28

Detection probe with 2x1.5 mm<sup>2</sup> shielded cable - IP65 - Extendable up to max. 20 m.  
 The probe allows temperature sensing in another room, underfloor or outside.



**1TP TE530B - 3V**  
**1TP TE531B - 230V**  
**“ZEFIRO” series 80 x 80 digital thermostat, white color**

- Power supply: 3V 2x1.5V AAA alkaline batteries (TE530B)  
230V a.c. 50-60Hz (TE531B)
- 2” 1/3 LCD display
- 1 potential-free changeover contact output:  
5 (3) A / 250Va.c.
- ON / OFF operation with adjustable differential switch 0,2 - 1,2°C or proportional with 7/20’ control period
- Temperature levels 2 + anti-freeze
- Temperature adjustable by 0.1°C sets
- LOW BAT indicator (TE530B)
- Autonomy: 24 months (TE530B)
- Relay status indicator
- SUM/WIN control
- Temperature setting lock
- Temperature offset: adjustable according to product positioning
- Temperature setting range: 5 - 37.7°C
- Dimensions (L x W x H) 84 x 23 x 84 mm



**1TP TE532B**  
**“ZEFIRO” series 80x80 digital thermostat 230V, for public areas white color**

- Power supply 230V a.c. 50-60Hz
  - 2” 1/3 LCD display
  - 1 potential-free changeover contact output:  
5 (3) A / 250Va.c.
  - ON / OFF operation with adjustable differential switch 0,2 - 1,2°C or proportional with 7/20 minutes control period
  - Temperature levels 2 + anti-freeze
  - Temperature adjustable by 0.1°C sets
  - Temperature setting range: 5 - 37.7°C
  - Dimensions (L x W x H) 89,7 x 27 x 87,4 mm
- Inaccessible controls, reserved to installer:
- temperature SET adjustment
  - SUM / WIN control
  - on /off
  - adjustment settings
  - Temperature offset: adjustable according to product positioning





**1TP TE011B**  
**“SLIM” series 3V digital thermostat, white color**

- Power supply: n° 2 Alkaline stilo batteries 1,5 V type AAA (LR0 3)
- 2,6” LCD display
- Multilanguage menu
- Type of output: voltage free relay with COM / NO / NC changeover contact - max 5(3)A/250 V ~
- Type of temperature adjustment: differential ON/ OFF adjustable from 0.2 °C to 1.2 °C or modulating proportional cycles adjustable from 7 to 20 minutes
- Number of temperature levels: 2+antifreeze
- Setting temperature Set: in step of 0.1 °C
- Ambient temperature display range: -5 °C ÷ + 37.7 °C
- Winter and Summer mode)
- Pump activation program
- Temperature set lock
- User password
- Installer password
- Relay ON signal
- Autonomy: more than 1 year
- Wall mount
- Temperature correction: adjustable from -3.0 °C to +3.0 °C
- Dimensions (LxWxH) 120 x 21 x 80 mm



**1TP TE400/B - 3V**  
**1TP TE410/B - 230V**  
**“SLIM” series digital thermostat with ON / OFF / NIGHT REDUCTION control, white color**

- Power supply: 3V 2x1.5V AAA alkaline batteries (TE400/B) 230V c.a. 50-60Hz (TE410/B)
- 1” LCD display
- 1 potential-free changeover contact output: 8 (2) A / 250V a.c.
- ON / OFF operation with settable differential switch 0.3 / 0.5 / 0.7 / 0.9°C
- Adjustment according to a graduated scale with analogue and digital setting
- Autonomy: 12 months (TE400/B)
- 1 temperature level with continuous adjustment + fixed reduced control -4°C on the set value
- ON / OFF / NIGHT REDUCTION control
- LOW BAT indicator LED
- Relay status indicator LED
- Remote night reduction control input
- Max Temperature setting lock
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 120 x 21 x 80 mm



**1TP TE402/B - 3V**  
**1TP TE411/B - 230V**  
**“SLIM” series digital thermostat with SUMMER / OFF / WINTER control, white color**

- Power supply: 3V 2x1.5V AAA alkaline batteries (TE402/B) 230V c.a. 50-60Hz (TE411/B)
- 1” LCD display
- 1 potential-free changeover contact output: 8 (2) A / 250V a.c.
- ON / OFF operation with settable differential switch 0.3 / 0.5 / 0.7 / 0.9°C
- Adjustment according to a graduated scale with analogue and digital setting
- Autonomy: 12 months (TE402/B)
- 1 temperature level with continuous adjustment + fixed reduced control -4°C on the set value
- SUMMER / OFF / WINTER control
- LOW BAT indicator LED
- Relay status indicator LED
- Remote night reduction control input
- Max Temperature setting lock
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 120 x 21 x 80 mm



**1TP TE500A - Anthracite color**  
**1TP TE500B - White color**  
**“ZEFIRO” series electronic thermostat with LED**

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 8 (2) A / 250V a.c.
- ON / OFF operation with fixed differential at 0.4°C
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 temperature level with continuous adjustment
- Wall mounting or semi recess
- Remote input for night reduction -4°C on the set-point value
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- Mains connection indicator LED
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 120 x 27.5 x 81 mm



**1TP TE501A - Anthracite color**  
**1TP TE501B - White color**  
**“ZEFIRO” series electronic thermostat with ON / OFF control**

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 8 (2) A / 250V a.c.
- ON / OFF operation with fixed differential at 0.4°C
- ON / OFF control
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 temperature level with continuous adjustment
- Wall mounting or semi recess
- Remote input for night reduction -4°C on the set-point value
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- Mains connection indicator LED
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 120 x 27.5 x 81 mm





**1TP TE502B**  
**“ZEFIRO” series electronic thermostat with floor probe, white color**

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 8 (2) A / 250V a.c.
- ON / OFF operation with fixed differential at 0.4°C
- ON / OFF control
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 temperature level with continuous adjustment
- Wall mounting
- Remote input for night reduction -4°C on the set-point value
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- Mains connection indicator LED
- Temperature setting range: 0 - +60°C
- Dimensions (L x W x H) 120 x 27.5 x 81 mm



**1TP TE503A - Anthracite color**  
**1TP TE503B - White color**  
**“ZEFIRO” series electronic thermostat with SUMMER / WINTER control**



- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 8 (2) A / 250V a.c.
- ON / OFF operation with fixed differential at 0.4°C
- SUMMER / OFF / WINTER control
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 temperature level with continuous adjustment
- Wall mounting or semi recess
- Remote input for night reduction -4°C on the set-point value
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- WINTER / SUMMER indicator LED
- Mains connection indicator LED
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 120 x 27.5 x 81 mm



**1TP TE565B**  
**“ZEFIRO” series electronic thermostat for Fan Coil with SUMMER / OFF / WINTER control, white color**

- Power supply 230V a.c. 50-60Hz
- 1 polarized NO contact output: 5 (2) A / 250V a.c.
- Proportional operation with fixed control period
- SUMMER / OFF / WINTER control
- I° II° III° Speed control
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 temperature level with continuous adjustment
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- SUMMER / WINTER indicator LED
- Power supply indicator LED
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 120 x 27.5 x 81 mm



**1TP TE566B**  
**Electronic thermostat “EUROPA” series for “Fan Coil” with SUMMER / OFF / WINTER control, white color**

- Power supply 230V a.c. 50-60Hz
- 1 polarized NO contact output: 5 (2) A / 250V a.c.
- Proportional operation with fixed control period
- SUMMER / OFF / WINTER control
- Temperature adjustment on graduated scale with mechanical index set-point
- I° II° III° Speed control
- 1 Temperature level with continuous adjustment
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 74 x 36 x 74 mm



**1TP TE041**  
**“EUROPA” series electronic thermostat, with SUMMER / WINTER control, white color**

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 5 (2) A / 250V a.c.
- ON / OFF operation with adjustable differential switch 0,2 - 2,5°C
- SUMMER / WINTER control
- 1 Temperature level with continuous adjustment
- Set-point with mechanical temperature lock
- Relay status indicator LED
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 74 x 36 x 74 mm



**1TP TE046**  
**“EUROPA” series electronic thermostat, with ON / OFF control, white color**

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 5 (2) A / 250V a.c.
- ON / OFF operation with adjustable differential switch 0,2 - 2,5°C
- ON / OFF control
- 1 Temperature level with continuous adjustment
- Set-point with mechanical temperature lock
- Relay status indicator LED
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 74 x 36 x 74 mm



## 1TP TE065

**“EUROPA” series electronic thermostat for “Fan Coil” with SUMMER / OFF / WINTER control, white color**

- Power supply 230V a.c. 50-60Hz
- 1 polarized NO contact output: 5 (2) A / 250V a.c.
- Proportional operation with fixed control period
- SUMMER / OFF / WINTER control
- 0 I° II° III° Speed control
- Relay status indicator LED
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 Temperature level with continuous adjustment
- Set-point with mechanical temperature lock
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 74 x 36 x 74 mm



## 1TG TEG130

**“TEG” series gas expansion thermostat without LED indicator, white color**

- 1 potential-free changeover contact output: 10 (2) A / 250V a.c.
- ON / OFF operation with fixed differential switch
- 1 temperature level with continuous adjustment
- Temperature adjustment on graduated scale with mechanical index set-point
- Set-point with mechanical temperature lock
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 74 x 40 x 74 mm



## 1TG TEG131

**“TEG” series gas expansion thermostat with LED indicator, white color**

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 10 (2) A / 250V a.c.
- ON / OFF operation with fixed differential switch
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 temperature level with continuous adjustment
- Set-point with mechanical temperature lock
- ON / OFF indicator LED of the connected load
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 74 x 40 x 74 mm



## 1TG TEG131RA

**“TEG” series gas expansion thermostat with LED indicator and Accelerating resistance, white color**

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 10 (2) A / 250V a.c.
- ON / OFF operation with fixed differential switch
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 temperature level with continuous adjustment
- Set-point with mechanical temperature lock
- Accelerating resistance
- ON / OFF indicator LED of the connected load
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 74 x 40 x 74 mm



## 1TG TEG132

**Electronic thermostat “TEG” series with LED indicator and ON / OFF control, white color**

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 10 (2) A / 250V a.c.
- ON / OFF operation with fixed differential switch
- ON / OFF control
- 1 temperature level with continuous adjustment
- Temperature adjustment on graduated scale with mechanical index set-point
- Set-point with mechanical temperature lock
- ON / OFF indicator LED of the connected load
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 74 x 40 x 74 mm



## 1TG TEG136

**Electronic thermostat “TEG” series with LED indicator and SUMMER / WINTER control, white color**

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 10 (2) A / 250V a.c.
- ON / OFF operation with fixed differential switch
- SUMMER / WINTER control
- 1 temperature level with continuous adjustment
- Temperature adjustment on graduated scale with mechanical index set-point
- Set-point with mechanical temperature lock
- ON / OFF indicator LED of the connected load
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 74 x 40 x 74 mm



## 1PA TEG03B “TEG”series base for thermostat installation

Base for TEG” thermostat installation “in round and / or rectangular recessed boxes

# CONTROL BOXES

## FUNCTIONAL FEATURES

The control boxes are electronic devices equipped with 4-8 inputs and 4-8 outputs for control of opening / closing of the electro valves mounted on distribution manifolds. Intelligent operation mode to start or stop any circulation pump installed in the hydraulic distribution box and / or the circulation pump of the individual boiler and / or the zone valve. When all the electro valves are close, the control box stops the pump / zone valve. When even only one of electro valves is open, the control box restarts the pump or the zone valve. Input for the connection of a time switch for programming the operating times of the heating system of the apartment (and of offices) and input for remote control switching of the system for winter / summer mode.



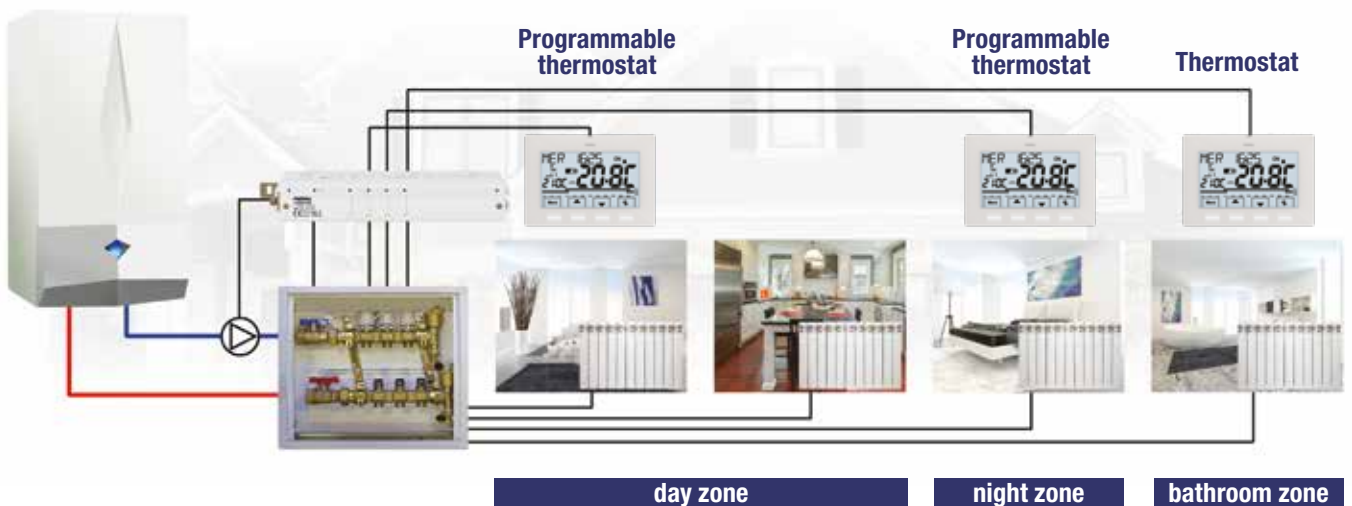
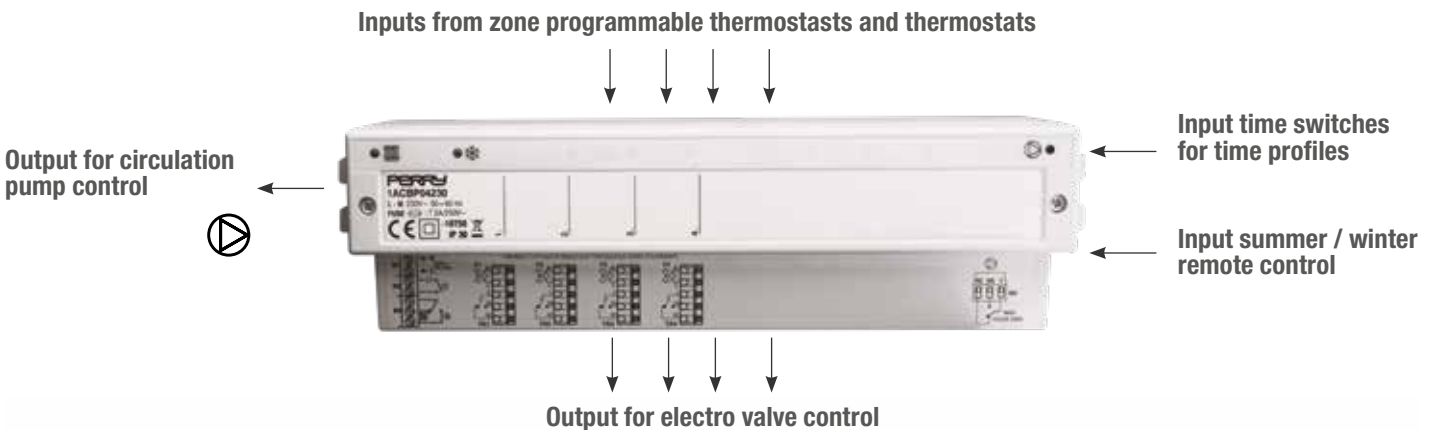
### 1AC BP04230 4-zones control box with 4 +1 relay outputs

- Power supply 230V a.c. - 50Hz
- Potential-free changeover contacts: 10 A / 250V a.c.
- 4 controllible zones
- Output for active pump control with at least one open zone valve
- Output controlled by a time switch
- Remotely controlled SUM / WIN output
- WINTER operation indicator LED
- SUMMER operation indicator LED
- ON / OFF pump
- control indicator LED
- Protection degree IP 30
- Dimensions (L x W x H) 250 x 76 x 43 mm



### 1AC BP08230 4-zones control box with 8 +1 relay outputs

- Power supply 230V a.c. - 50Hz
- Potential-free changeover contacts: 10 A / 250V a.c.
- 8 controllible zones
- Output for active pump control with at least one open zone valve
- Output controlled by a time switch
- Remotely controlled SUM / WIN output
- WINTER operation indicator LED
- SUMMER operation indicator LED
- ON / OFF pump
- control indicator LED
- Protection degree IP 30
- Dimensions (L x W x H) 250 x 76 x 43 mm



# WIRELESS TEMPERATURE CONTROL



## 1TX CRTX05 Wireless weekly digital programmable thermostat with 868.35 MHz RF output - white color

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 3V - 2x1.5V AA alkaline batteries
- 3"  $\frac{3}{4}$  LCD display
- ON / OFF operation with adjustable differential switch 0.2 - 0.7°C
- 2 temperature levels + anti-freeze (excludable or adjustable)
- 3 preset programs (modifiable)
- Minimum programming time 30 minutes
- MASTER function
- 3 years autonomy
- Temperature settings protected by password
- Adjustable temperature range: 5 - 39,9°C
- Automatic daylight saving time change
- SUMMER / WINTER option
- Possibility of correction of the detected room temperature (OFFSET).
- Interruption button for cleaning operations
- Range: 30 - 130m
- Dimensions: (L x W x H) 120 x 21 x 80 mm

## 1PA BTCRTX01 Table base for wireless programmable thermostat



## 1TX TETX04 Wireless daily digital thermostat with 868.35 MHz RF output - white color

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 3V - 2x1.5V AA alkaline batteries
- 2"  $\frac{1}{3}$  LCD display
- ON / OFF operation with adjustable differential switch 0.2 - 0.7°C
- 2 temperature levels + anti-freeze (excludable or adjustable)
- 3 years autonomy
- SUMMER / WINTER option
- Temperature settings protected by password
- Operational safety is ensured by a double transmission of information to the receiver
- Possibility of correction of the detected room temperature (OFFSET).
- Indication of ON status and LOW battery
- Adjustable temperature range: 5 - 39,9°C
- Range: 30 - 130m
- Dimensions (L x W x H): 84 x 23 x 84 mm

## 1PA BTETX01 Table base for thermostat TETX04



## 1TX CCRX01 Status control unit zone 868.35MHz - white color

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

The control unit activates the load (pump boiler) with at least one open electronic valve

- Power supply 230V a.c. 50Hz
- 1 potential-free changeover contact output: 5 (2) A / 250V
- Reception frequency: 868.35Mhz
- RF signal level indicator
- Dimensions (L x W x H) 133 x 25 x 90 mm



## 1TX RX01/P 1-zone wall-mounted radio receiver - white color



## 1TX RX02/P 2-zones wall-mounted radio receiver + 1 circulation pump output - white color

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 230V a.c. 50-60Hz
- Reception frequency: 868.35Mhz
- 1TX RX01/P: 1 potential-free changeover contact output: 5 (2) A / 250V a.c.
- 1TX RX02/P: 2 potential-free changeover contacts output: 5 (2) A / 250V + 1 Output to control the circulation pump 5 (2) A / 250V a.c.
- Manual ON / OFF control
- RF signal level indicator
- Dimensions (L x W x H) 133 x 25 x 90 mm



## 1TX RX0801/P 8-zones wall-mounted radio receiver + 1 circulation pump output - white color

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- 18V power supply via BUS
- Reception frequency: 868.35Mhz
- BUS RS 485 output for 8-output control + 1 circulation pump control output
- Manual ON / OFF control
- RF signal level indicator
- Signal to control the activated circulation pump
- Adjustable pump control delay 0" or 120"
- Dimensions (L x W x H) 133 x 25 x 90 mm



## 1TX BC0401/230 4-zones Control box

## 1TX BC0801/230 8-zones Control box

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 230V a.c. 50-60Hz
- 4 polarized outputs at 230V (1TX BC0401/230)
- 8 polarized outputs at 230V (1TX BC0801/230)
- Load 8 (2) A / 250V a.c. + 1 output to control the circulation pump 8 (2) A / 250V a.c.
- IP 32 (IP 52 with accessory cable glands)
- Connection to receiver RX0801/P with BUS RS 485
- Fault indicator LED
- ON / OFF pump status indicator LED
- mains presence indicator LED
- ON / OFF zone status indicator LED
- Dimensions (L x W x H) 250 x 76 x 43 mm



### 1TX VTRX02 Electronic actuator for water radiators with 868,35 MHz RF transceiver - white color

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 3V - 2x1.5V type C alkaline batteries
- Approx. lifetime 3 years
- ON / OFF operation
- RF signal level indicator
- IP 40
- Fault and / or battery charge indicator
- Valve opening / closing condition indicator
- Threaded coupling for radiators with adaptation ring nut for the main thermostatic valves
- Dimensions: (L x W x H): 62 x 70 x 97 mm

## KITS FOR EXISTING SYSTEMS



### 1TX CRTX05RX01

Kit including 1 radio programmable thermostat + 1 wall-mounted 1-zone radio receiver 1TX RX01/P

CRTX05 programmable thermostat adjusts the time profiles and the temperature settings in the house. The RX01/P radio receiver activates / deactivates the connected load (pump, boiler, ...) according to the heat demand of the programmable thermostat.



### 1TX TETX04RX01

Kit including 1 radio thermostat + 1 wall-mounted 1-zone radio receiver 1TX RX01/P

TETX04 thermostat adjusts the temperature settings in the house. The RX01/P radio receiver activates / deactivates the connected load (pump, boiler, ...) according to the heat demand of the thermostat.

## ACCESSORIES



### 1PA ASVT01 Angle adapter for electronic valves on radiators

It allows the vertical installation of the electronic valves on the radiators



### 1PA PPBC01 Cable glands for control boxes

Package consists of n° 11 cable glands for control boxes, protection degree IP52

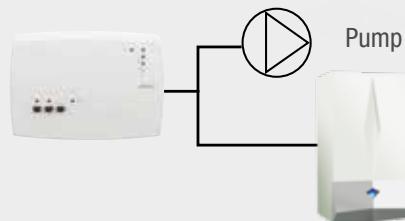
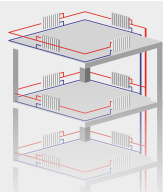
**Zone 1**  
Programmable  
thermostat



**Zone 2**  
Thermostat



### SINGLE OR CONDOMINIUM APARTMENT WITH HORIZONTAL PIPING SYSTEM



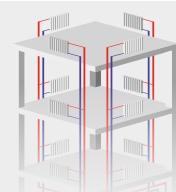
**Zone 1**  
Internal probe  
Programmable  
thermostat



**Zone 2**  
Internal probe  
Thermostat



### CONDOMINIUM APARTMENT WITH VERTICAL PIPING SYSTEM



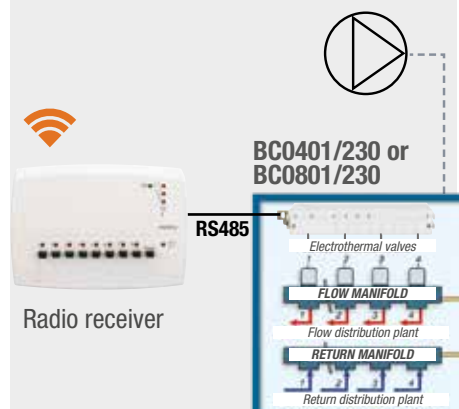
**Zone 1**  
Internal probe  
Programmable  
thermostat



**Zone 2**  
Internal probe  
Thermostat



### NEW OR RENOVATED APARTMENTS WITH DISTRIBUTION BOX



**Zone 1**  
Internal probe  
Programmable  
thermostat

**Zone 2**  
Internal probe  
Thermostat

## DIN RAIL MOUNTED THERMOSTATS



### 1TM TE082

#### Electronic thermostat with adjustment on 2 temperature levels Comfort and Reduction - 2 DIN

- Power supply: 230V a.c. - 50Hz
- 1 potential-free changeover contact output: 16 (3) A / 250V a.c.
- ON / OFF operation with adjustable differential switch 0.5-2.5°C
- ON / OFF / ANTI-FREEZE control
- Comfort / reduction / automatic remote selection control
- 2 graduated scales with adjustment index
- 2 temperature levels with continuous adjustment
- Adjustable night reduction remote input
- Set-point with mechanical temperature lock
- Relay status indicator LED
- Comfort indicator LED
- Night reduction indicator LED
- Equipped with NTC-type remote probe, with white and anthracite caps to be recessed in wiring devices blind plug, extendedable up to max. 100 m with shielded cable
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 35 x 60 x 128 mm



### 1TM TE083

#### Electronic thermostat with ON / OFF / ANTI-FREEZE - 2 DIN

- Power supply 230V a.c. - 50Hz
- 1 potential-free changeover contact output: 16 (3) A / 250V a.c.
- ON / OFF operation with adjustable differential switch 0.5-2.5°C
- ON / OFF / ANTI-FREEZE control
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Adjustable night reduction remote input
- Relay status indicator LED
- Night reduction indicator LED
- Equipped with NTC-type remote probe, with white and anthracite caps to be recessed in wiring devices blind plug, extendedable up to max. 100 m with shielded cable
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 35 x 60 x 128 mm



### 1TM TE084

#### Electronic thermostat with SUMMER / OFF / WINTER - 2 DIN

- Power supply 230V a.c. - 50Hz
- 1 potential-free changeover contact output: 16 (3) A / 250V a.c.
- ON / OFF operation with adjustable differential switch 0.5-2.5°C
- SUMMER / OFF / WINTER control
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Adjustable night reduction remote input
- Relay status indicator LED
- Night reduction indicator LED
- Equipped with NTC-type remote probe, with white and anthracite caps to be recessed in wiring devices blind plug, extendedable up to max. 100 m with shielded cable
- Temperature setting range: 5 - 30°C
- Dimensions (L x W x H) 35 x 60 x 128 mm



### 1TM TE052/M

#### Electronic thermostat for switchboards - 2 DIN

For switchboards cooling and anti-condensation

- Power supply 230V a.c. - 50Hz
- 1 potential-free changeover contact output: 16 (3) A / 250V a.c.
- ON / OFF operation with fixed differential switch 2°C
- 2 graduated scales with adjustment index
- Cooling adjustment range +20°C / +60°C
- Anticondensation adjustment range +0°C / +10°C
- 2 temperature levels with continuous adjustment
- Remote probe input
- Relay status indicator LED
- Damaged probe indicator LED
- Equipped with NTC-type remote probe, with white and anthracite caps to be recessed in wiring devices blind plug, extendedable up to max. 100 m with shielded cable
- Dimensions (L x W x H) 35 x 60 x 128 mm





**1TM TE075**  
**Electronic thermostat -30 / +30°C - 2 DIN**

- Power supply 230V a.c. - 50Hz
- 1 potential-free changeover contact output:  
16 (3) A / 250V a.c.
- ON / OFF operation with fixed differential switch 1°C
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Remote probe cable length max. 100m
- Remote probe input
- Adjustment range -30°C / +30°C
- Relay status indicator LED
- Damaged probe indicator LED
- Dimensions (L x W x H) 35 x 60 x 128 mm



**1TM TE076**  
**Electronic thermostat -20 / +40°C - 2 DIN**

- Power supply 230V a.c. - 50Hz
- 1 potential-free changeover contact output:  
16 (3) A / 250V a.c.
- ON / OFF operation with fixed differential switch 1°C
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Remote probe input
- Remote probe cable length max. 100m with shielded cable
- Adjustment range -20°C / +40°C
- Relay status indicator LED
- Damaged probe indicator LED
- Dimensions (L x W x H) 35 x 60 x 128 mm



**1TM TE077**  
**Electronic thermostat 0 / +60°C - 2 DIN**

- Power supply 230V a.c. - 50Hz
- 1 potential-free changeover contact output:  
16 (3) A / 250V a.c.
- ON / OFF operation with fixed differential switch 1°C
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Remote probe input
- Remote probe cable length max. 100m with shielded cable
- Adjustment range 0°C / +60°C
- Relay status indicator LED
- Damaged probe indicator LED
- Dimensions (L x W x H) 35 x 60 x 128 mm



**1TM TE078**  
**Electronic thermostat 40 / +100°C - 2 DIN**

- Power supply 230V a.c. - 50Hz
- 1 potential-free changeover contact output:  
16 (3) A / 250V a.c.
- ON / OFF operation with fixed differential switch 1°C
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Remote probe input
- Remote probe cable length max. 100m with shielded cable
- Adjustment range 40°C / +100°C
- Relay status indicator LED
- Damaged probe indicator LED
- Dimensions (L x W x H) 35 x 60 x 128 mm



**1TM STE01 PTC temperature detection probe with 1.5m cable**

Detection probe with shielded cable 2 x 1.5 mm<sup>2</sup> - IP 68 extendable up to max. 100m



**1TM STE01/4 PTC temperature detection probe with 4m cable**

Detection probe with shielded cable 2 x 1.5 mm<sup>2</sup> - IP 68 extendable up to max. 100m

# MECHANICAL CONTACT THERMOSTATS



## 1TC TB060 Contact thermostat for piping

- 1 potential-free changeover contact output: 16 (5) A / 250V a.c.
- ON / OFF operation with fixed differential switch  $4 \pm 2^\circ\text{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Installation in piping with supplied elastic strap
- Adjustment range  $+30^\circ\text{C} / +90^\circ\text{C}$
- IP 20
- Dimensions (L x W x H) 54 x 56 x 99 mm



## 1TC TB065 Thermostat, immersion bulb

- 1 potential-free changeover contact output: 16 (5) A / 250V a.c.
- ON / OFF operation with fixed differential switch  $4 \pm 2^\circ\text{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Bulb diameter 8mm
- Bulb for immersion installation
- Adjustment range  $+30^\circ\text{C} / +90^\circ\text{C}$
- IP 20
- Dimensions (L x W x H) 54 x 72 x 98.5 mm



## 1TC TB071 Thermostat with safety limiting device

- 1 potential-free changeover contact output: 16 (5) A / 250V a.c.
- ON / OFF operation with fixed differential switch  $4 \pm 2^\circ\text{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Bulb diameter 14mm
- Bulb for immersion installation
- Adjustment range  $+30^\circ\text{C} / +90^\circ\text{C}$
- Safety limiting device  $T=100^\circ\text{C}$
- IP 20
- Dimensions (L x W x H) 108 x 56 x 98.5 mm



## 1TC TB081 Thermostat for hot air generators

- 1 potential-free changeover contact output: 16 (5) A / 250V a.c.
- ON / OFF operation with fixed differential switch  $4 \pm 2^\circ\text{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Bulb diameter 14mm
- Bulb for immersion installation
- Adjustment range  $+30^\circ\text{C} / +90^\circ\text{C}$
- IP 20
- Installation in hot air generators
- Dimensions (L x W x H) 108 x 56 x 98.5 mm



## 1TC TB088 Thermostat with external probe +4 / +40°C

- 1 potential-free changeover contact output: 16 (5) A / 250Va.c.
- ON / OFF operation with fixed differential switch  $1,5 \pm 1^\circ\text{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Adjustment range  $+4^\circ\text{C} / +40^\circ\text{C}$
- IP 20
- Dimensions (L x W x H) 72 x 45.5 x 136 mm



## 1TC TB090 Thermostat with external probe -5 / +35°C

- 1 potential-free changeover contact output: 16 (5) A / 250V a.c.
- ON / OFF operation with fixed differential switch  $1,5 \pm 1^\circ\text{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Adjustment range  $-5^\circ\text{C} / +35^\circ\text{C}$
- IP 54
- Dimensions (L x W x H) 61 x 60 x 105 mm



## 1TC TB091 Thermostat with external probe +20 / +60°C

- 1 potential-free changeover contact output: 16 (5) A / 250Va.c.
- ON / OFF operation with fixed differential switch  $1,5 / -1^\circ\text{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Adjustment range  $+20^\circ\text{C} / +60^\circ\text{C}$
- IP 54
- Dimensions (L x W x H) 61 x 60 x 105 mm



## MOTION AND PRESENCE DETECTORS

### Contact closing with zero load and "ZERO CROSSING" method

The relay contacts will open and close only in the instant when the voltage is equal to zero. This method allows to increase the contact lifetime by optimizing the activation and deactivation of the load. ZERO CROSSING products are particularly suitable for controlling electronic lamps, LED and energy-saving lamps.

#### 1SP SP050

##### Motion detector for recess mounting in round box, white lens - IP 40



- Possibility of manual override to keep the light on five hours by disabling the action of the sensor.

- Power supply 230V a.c.  $\pm$  10% 50 Hz
- Maximum lighting load:  
incandescent lamps 1.000W  
fluorescent lamps (uncompensated) 480W  
fluorescent lamps (compensated in parallel) 250W  
CFL / LED lamps (230V) 7W  $\div$  23W max 8 lamps
- Protection degree IP 40
- Wire section at terminals 0,75..... 2,5 mm<sup>2</sup>
- Degree of pollution normal
- Installation in recess mounted round box

- Detection angle 180° up to 3m, 160° from 3 m to 12 m
- Detection distance 12 m
- Adjustment of deactivation delay from 15" to about 30"
- Lux adjustment from 20 to 300 LUX
- Warm Up Time when first powered or after blackout about 1 minute
- Operating temperature from 0°C to +40°C
- Storing temperature from -10°C to +60°C
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions (L x W x H) 80 x 54,5 x 80 mm



#### 1SP SP044B - IP44

#### 1SP SP055B - IP55

##### Wall-mounted motion detector "ZERO" range - white color

- Equipped with adapter for installation in corners.

- Possibility of limiting the detection range by obscuring the segments of the lens either horizontally or vertically.

- Power supply 230V a.c.  $\pm$  10% 50 Hz
- Maximum lighting load:  
incandescent lamps 1.800W  
fluorescent lamps (uncompensated) 480W  
fluorescent lamps (compensated in parallel) 250W  
CFL / LED lamps (230V) 7W  $\div$  23W max 5 lamps
- Protection degree IP44 (SP044) - IP55 (SP055)
- Wire section at terminals 0,75..... 2,5 mm<sup>2</sup>
- Degree of pollution normal
- Detection angle up to 220°

- Detection distance 12 m
- Adjustment of deactivation delay from about 35" to about 20"
- Lux adjustment from 5 to 1.000 LUX
- Warm Up Time when first powered or after blackout about 40"
- Operating temperature from -20°C to +40°C
- Storing temperature from -20°C to +70°C
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions (L x W x H) 72,6 x 91,6 x 93,5 mm



#### 1SP SP003A - Anthracite color

#### 1SP SP003B - White color

##### Wall-mounted infrared motion detector "CUBE" with "zero crossing"- IP 54

- Possibility of manual override to keep the lights on 5 hours disabling the action of the sensor.

- Power supply 230V a.c.  $\pm$  20% 50 Hz
- Relay output 5A
- Maximum lighting load:  
incandescent lamps 1.000W  
fluorescent lamps (uncompensated) 480W  
fluorescent lamps (compensated in parallel) 200W  
CFL / LED lamps (230V) 7W  $\div$  23W max 8 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance

- Protection degree IP 54
- Degree of pollution normal
- Detection angle 140° - Detection distance max 10 m
- Head swivelling angle 180° horizontal, 12° vertical
- Adjustment of deactivation delay 10" - 12"
- Lux adjustment from 5 to 300 LUX
- Sensitivity adjustment 40cm - 10m
- Insulation class II
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions (L x W x H) 50 x 64 x 102 mm

**ZERO CROSSING**



#### 1SP SP005

##### Wall-mounted infrared motion detector with "zero crossing" - IP 55 white color

- Equipped with adapter for installation in corners.

- Possibility of limiting the detection range by obscuring the segments of the lens either horizontally or vertically.

- Possibility of manual override to keep the lights on 4 hours disabling the action of the sensor.

- Power supply 220÷240V c.a. 50Hz
- Maximum lighting load:  
incandescent lamps 2.000W  
fluorescent lamps (uncompensated) 480W  
fluorescent lamps (compensated in parallel) 220W  
CFL / LED lamps (230V) 7W  $\div$  23W max 8 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance
- Protection degree IP 55
- Degree of pollution normal

- Detection angle 240°
- Detection distance max 12 m
- Head swivelling angle 180° horizontal (limitable)
- Adjustment of deactivation delay 5" - 12"
- Lux adjustment from 5 to 1.000 LUX
- Sensitivity adjustment 3 - 12m
- Insulation class II
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions (L x W x H) 72 x 106 x 88 mm

**ZERO CROSSING**



#### 1SP SP060B

##### Wall-mounted motion detector with courtesy LED light - IP54

- Equipped with adapter for ceiling installation

- Power supply 230V a.c.  $\pm$  10% 50 Hz
- Maximum lighting load:  
incandescent lamps 1.000W  
fluorescent lamps (uncompensated) 400W  
fluorescent lamps (compensated in parallel) 250W  
CFL / LED lamps (230V) 7W  $\div$  23W max 5 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance

- Protection degree IP54
- Detection angle 180°
- Detection distance 12 m
- Adjustment of deactivation delay from about 5" to 12"
- Lux adjustment from 20 to 300 LUX
- Insulation class II
- Consumption in stand-by mode 0,5W
- Dimensions (L x W x H) 60 x 92 x 80 mm

**ZERO CROSSING**

# MOTION AND PRESENCE DETECTORS



- Head adjustable horizontally and vertically.

## 1SP SP010

### Wall-mounted infrared motion detector - IP 44 - white color

ZERO CROSSING

- Power supply 220÷240V c.a. 50Hz
- Maximum lighting load:
  - incandescent lamps 1.000W
  - fluorescent lamps (uncompensated) 400W
  - fluorescent lamps (compensated in parallel) 220W
  - CFL / LED lamps (230V) 7W ÷ 23W max 8 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance
- Protection degree IP44
- Degree of pollution normal
- Detection angle 180°
- Detection distance max 12 m
- Head swivelling angle 70° horizontal - 35° vertical
- Adjustment of deactivation delay 5" - 12'
- Lux adjustment from 1 to 1.000 LUX
- Insulation class II
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions (L x W x H) 65 x 88 x 95 mm



- Possibility of manual override to keep the lights on 4 hours disabling the action of the sensor.

## 1SP SP015

### 1SP SP015CL - 1 potential free changeover contact

### Ceiling mounted infrared presence detector with "zero crossing" - IP20

ZERO CROSSING

- Power supply 220÷240V c.a. 50Hz
- Maximum lighting load:
  - incandescent lamps 2.000W
  - fluorescent lamps (uncompensated) 480W
  - fluorescent lamps (compensated in parallel) 250W
  - CFL / LED lamps (230V) 7W ÷ 23W max 8 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance
- Protection degree IP 20
- Degree of pollution normal
- Detection angle 360°
- Detection distance max 12 m
- Adjustment of deactivation delay 2' - 15'
- Lux adjustment from 5 to 1.000 LUX
- Insulation class II
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions (DxW) Ø 130 x 70 mm



## 1SP SP020

### Recess mounted in ceiling infrared presence detector with "zero crossing" - IP 20

ZERO CROSSING

- Power supply 220÷240V c.a. 50Hz
- Diameter installation hole Ø 70mm
- Maximum lighting load:
  - incandescent lamps 2.000W
  - fluorescent lamps (uncompensated) 480W
  - fluorescent lamps (compensated in parallel) 250W
  - CFL / LED lamps (230V) 7W ÷ 23W max 8 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance
- Protection degree IP 20
- Degree of pollution normal
- Detection angle 360°
- Detection distance max 14 m
- Adjustment of deactivation delay 10 settings  
5, 10, 20, 40, 80, 160 seconds / 5, 10, 20, 40 minutes
- Lux adjustment from 30 to 200 LUX
- Insulation class II
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions (DxW) Ø 79,80 x 91 mm
- Height of lens 18mm



## 1MC D002

### Dimmer for flush mounting Ø 60 mm round box

- Power supply 230V c.a. ± 10% 50 Hz
- Maximum lighting load:
  - Incandescent lamps TE 400W
  - Alogen lamps TE 400W
  - LED TE 100W
  - LED LE 25W
  - Electromechanical trasformers L type LE 200W
- P (min-max) 0-200/0-200/0-100/0-25/0-200W
- Button mode: LE or TE
- Max cross-section of wires to terminals: 0,75... 6 mm<sup>2</sup>
- Protection degree IP 20
- Working temperature from -10°C to +35°C
- Storing temperature from -10°C to +60°C
- CE marking reference standard LVD/EMC DIRECTIVE BT; EMC: 2002/96/EC; 2002/95/EC, EN61000-3-2
- Dimensions (L x W x H) 58,7 x 45 x 25,3 mm



**110 I0WF02**  
Wi-Fi time switch - 2 DIN



**110 IAWF0102**  
Astronomical Wi-Fi time switch - 2 DIN



- Power supply 230V c.a. 50 - 60Hz
- Contact output: 16 (2) A / 250V c.a.
- Max programs: 15 weekly programs for every function
- ON-OFF minimum connection time: 1 minute
- Visualisation: App
- Max cross-section of wires to terminals: 6 mm<sup>2</sup>
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II
- ON / OFF relay signal: LED

- Charge reserve: min. 72 hours
- Time tolerance: ± 0,5 sec/day
- Operating temperature limits: 0°C +50°C
- Storing temperature: -10°C +65°C
- Type of installation: DIN rail / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: ON/OFF/Reset button on front
- Clock setting accuracy: digital for hours/minutes
- Dimensions (L x W x H) 35 x 60 x 90 mm



**110 I060WF**  
Wi-Fi time switch - 60x60 module

- Power supply 230V c.a. +10% 50/60Hz
- Connection with FASTOM
- Max electric load 16A
- Programmable via App

- Max programs: 15 weekly programs for function
- Front button
- Relay status LED indicator on front
- Dimensions (L x W x H) 60 x 26 x 60 mm



**110 0057WF - Wi-Fi time switch Italy plug**  
**110 0057WFF - Wi-Fi time switch France plug**  
**110 0057WFGB - Wi-Fi time switch UK plug**

- Power supply 230V c.a. +10% 50/60Hz
- Max electric load 16A (13A UK plug)
- Programmable via App
- Max programs: 15 weekly programs for type

- Front button
- Relay status LED indicator on front
- Dimensions (L x W x H) 56 x 40 x 111 mm

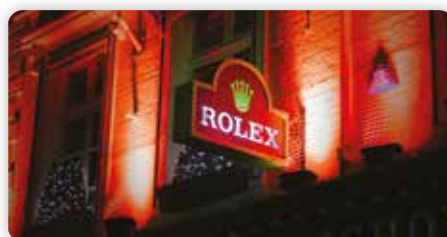
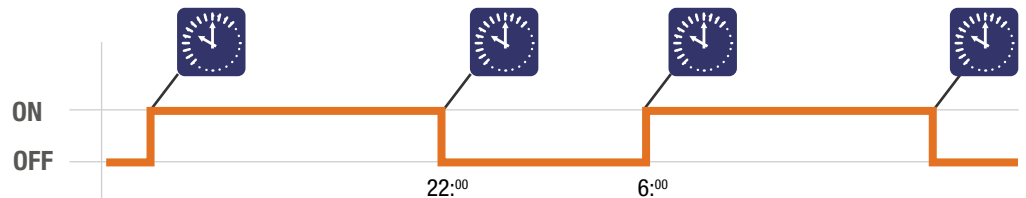
## PROGRAMMING EXAMPLES:

### WI-FI TIME SWITCH 2DIN



The combination of several programs allows you to meet even more complex needs such as turning ON/OFF multiple lights using group management.

The example shown was made using several ON/OFF timer programs to manage a store's interior sign and lights.



## DIGITAL TIME SWITCHES




backlit display

**110 3090 - Daily-yearly - 1 channel**  
**110 3091 - Weekly-yearly - 1 channel**  
**110 3291 - Weekly-yearly - 2 channels**  
**Menu driven time switch - 2 DIN**

**110 5091S - Weekly-yearly - 1 channel**  
**110 5291S - Weekly-yearly - 2 channels**

**Menu driven time switch with programming key - synchronizable with DCF and/or GPS time signal - 2 DIN**

- Power supply 230V c.a.  $\pm 10\%$  50 - 60Hz
- Contact output: limited current NO contact  
ZERO CROSSING 16 (10) A / 250V a.c.
- Max programs: 64 (matchable in blocks of days)
- ON-OFF minimum connection time: 1 second
- Visualisation: 1" 1/3 backlit LCD display
- Maximum lighting load: Incandescent LPs 3000W  
Fluorescent tube LPs, not compensated 1100W  
Parallely comp. fluorescent tube LPs 900W (tot capacity 125  $\mu$ F)  
Compact, fluorescent LPs 7 W  $\div$  23 W (max. 23 lamp.)  
LED 25 x 4 W / 12 x 8 W / 8 x 15 W
- Max cross-section of wires to terminals: 1 ... 6 mm<sup>2</sup>
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II 
- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 6 years
- Type of reserve: LITHIUM battery
- Time tolerance:  $\pm 0,5$  sec/day
- Operating temperature limits: 0°C +50°C
- Storing temperature: -10°C +65°C
- Type of installation: DIN rail / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: multifunction keys (menu programming)  
confirmation key
- Clock setting accuracy: digital for hours/minutes
- Daylight saving time change: automatic
- Programming: menu driven - programs protected in EEPROM
- Dimensions (L x W x H) 35 x 60 x 90 mm



### ACCESSORIES

#### 1PR EMD01 "EMD" programming key

External memory to upload / download programs

#### 110 SW001 Programming software for PC

It allows the programming on your computer. The created programs can be saved, sent via e-mail, printed or transferred to the time switch via the "EMD" programming key.



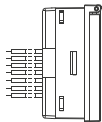
#### 1PA RXDCF77 Time signal receiver from Frankfurt for synchronized time switches

- Power supply 230V a.c. 50/60Hz
- Wall-mounted or pole installation
- BUS output signal
- Protection degree IP 65
- Wiring with shielded cable diameter 7-11mm
- Anti-UV opaline housing
- Wiring with cables up to 2.5 mm<sup>2</sup>
- Can be connected to max no. 10 time switches
- LED intervention signalling
- Dimensions (L x W x H) 72 x 37.5 x 147 mm



#### 1PA RXGPS01 Satellite GPS time signal receiver for synchronized time switches

- Power supply 230V a.c. 50/60Hz
- Wall-mounted or pole installation
- BUS output signal
- Protection degree IP 65
- Wiring with shielded cable diameter 7-11mm
- Anti-UV opaline housig
- Wiring with cables up to 2.5 mm<sup>2</sup>
- Can be connected to max no. 10 time switches
- LED intervention signalling
- Dimensions (L x W x H) 72 x 37.5 x 147 mm



**110 1080/M - Daily - 1 channel**  
**110 1280/M - Daily - 2 channels**  
**110 1081/M - Weekly - 1 channel**  
**110 1281/M - Weekly - 2 channels**

**Digital time switch module with automatic daylight saving time change**



**110 7080 - Daily with automatic daylight saving time change - 1 channel**  
**110 7081 - Weekly with automatic daylight saving time change - 1 channel**  
**110 7281 - Weekly with automatic daylight saving time change - 2 channels**  
**Digital time switch - 2 DIN**


1 potential-free changeover contact 

backlit display



**110 6080 - Daily without daylight automatic saving time change - 1 channel**  
**110 6081 - Weekly without daylight automatic saving time change - 1 channel**  
**Digital time switch - 2 DIN**


1 potential-free changeover contact 

- Power supply 230V c.a. ±20% 50 - 60Hz
- Contact output: 16 (2) A / 250V a.c.
- Max programs: 58 (matchable in blocks of days)
- ON-OFF minimum connection time: 1 second
- Visualisation: 1" 1/3 backlit LCD display
- Maximum lighting load: Incandescent LPs 3500W  
Fluorescent tube LPs, not compensated 2300W  
Parallely comp. fluorescent tube LPs 700W (tot capacity 35 µF)  
Compact, fluorescent LPs 290W (7 x 15W)  
LED max n° 15 x 4 W / 10 x 8 W / 7 x 15 W
- Max cross-section of wires to terminals: 1 ... 6 mm<sup>2</sup>
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II 

- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 6 years
- Type of reserve: LITHIUM CR2032 rechargeable battery
- Time tolerance: ± 0,5 sec/day
- Operating temperature limits: 0°C +50°C
- Storing temperature: -10°C +65°C
- Type of installation: DIN rail / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: multifunction keys (menu programming) confirmation key
- Clock setting accuracy: digital for hours/minutes
- Daylight saving time change: for 4 geographic areas
- Programming: for hours, minutes and seconds
- Dimensions (L x W x H) 35 x 60 x 90 mm



**110 4091 - 1 channel**  
**110 4291 - 2 channels**  
**Astronomical twilight time switch - 2 DIN**

- Power supply 230Vc.a.±/-10%, 50Hz
- Contact output: limited current NO contact  
**ZERO CROSSING** 16 (2) A / 250V a.c.
- Max programs: 45 ON-OFF
- ON-OFF minimum connection time: 1 minute
- Visualisation: 1" 1/3 backlit LCD display
- Maximum lighting load: Incandescent LPs 3000W  
Fluorescent tube LPs, not compensated 1100W  
Parallely comp. fluorescent tube LPs 900W (tot capacity 125 µF)  
Compact, fluorescent LPs 7 W ÷ 23 W (max. 23 lamp.)  
LED max n° 25 x 4 W / 12 x 8 W / 8 x 15 W
- Max cross-section of wires to terminals: 1 ... 6 mm<sup>2</sup>
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II 

**UNIQUE ON THE MARKET**  
**Astro-Lux-Time in one product!**

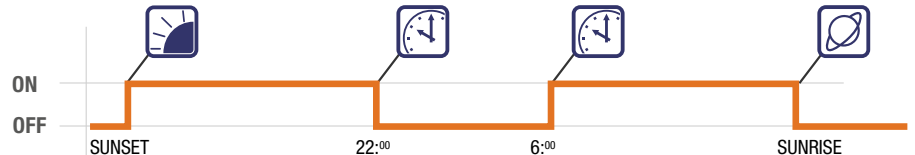
- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 6 years
- Type of reserve: CR2032 replaceable battery
- Time tolerance: ± 1 sec/day
- Operating temperature limits: -20°C +55°C
- Storing temperature: -30°C +60°C
- Type of installation: DIN rail / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: manual function key ON/OFF
- Clock setting accuracy: digital for hours/minutes
- Daylight saving time change: euro / free / none
- Programming: for hours and minutes
- Dimensions (L x W x H) 35 x 60 x 90 mm

backlit display



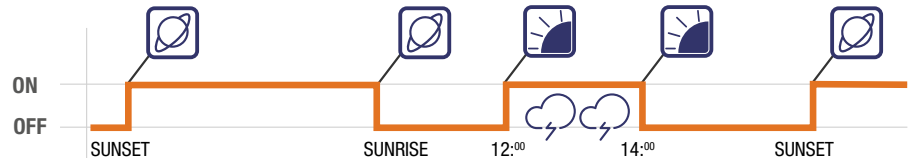
**1 SHOP SIGNBOARD - Operation with twilight / time / Astro logic**

- ON** TWILIGHT
- OFF** TIME h 22:00
- ON** TIME h 6:00
- OFF** ASTRONOMIC



**2 PUBLIC/SQUARE/PARKING LIGHTING - Operation with astronomical logic and daytime intervention in twilight mode in case of storm**

- ON** ASTRONOMIC
- OFF** ASTRONOMIC



**ACCESSORIES**

**1PR EMD01 "EMD" programming key**  
 External memory to upload / download programs



**1PR 6092 Outdoor cadmium-free probe**  
 The probe is not included in the packing, it must be purchased separately.

- Installation outdoors on wall and/or pole
- Connection with cables measuring between 0.75 and 2.5 mm<sup>2</sup>
- Cabling with 4-8 mm shielded cable
- UV-resistant opal housing
- Protection degree IP 65
- Dimensions of sensor (L x W x H) 28 x 48 x 56 mm




## DIGITAL TIME SWITCHES



### 110 1070 - Daily

### 110 1071 - Weekly

#### Digital time switch with automatic standard time / daylight saving time change - 1 DIN


- Power supply 230V c.a. 50 - 60Hz
- Contact output: 16 (2) A / 250V a.c.
- Max programs: 96 (110 1070) - 672 (110 1071)
- ON-OFF minimum connection time: 15 minutes
- Visualisation: 14" LCD display
- Maximum lighting load: 3500VA (each contact)  
Incandescent LPs 2300W  
Fluorescent tube LPs, not compensated 1000W  
Parallely comp. fluorescent tube LPs 290W (tot capacity 35 µF)  
Compact, fluorescent LPs 105W (7 x 15W)  
LED max n° 15 x 4 W / 10 x 8 W / 7 x 15 W
- Max cross-section of wires to terminals: 1 ... 2.5 mm<sup>2</sup>
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II 
- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 15 days
- Type of reserve: NiMH rechargeable battery
- Time tolerance: ± 0,5 sec/day
- Operating temperature limits: 0°C +50°C
- Storing temperature: -10°C +50°C
- Type of installation: DIN rail / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: programming keys, ON/OFF key
- Clock setting accuracy: digital for hours/minutes
- Daylight saving time change: automatic
- Dimensions (L x W x H) 17.5 x 60 x 90 mm



### 110 0022/D15 - Daily

### 110 0024/D15 - Weekly

#### Digital time switch with tappets and display - 2 DIN

- Power supply 230V c.a. 50 - 60Hz
- Contact output: 16 (2) A / 250V a.c.
- Max programs: 96 (110 1070) - 672 (110 1071)
- ON-OFF minimum connection time: 15 minutes
- Visualisation: 1" LCD circular display
- Maximum lighting load: 3500VA (each contact)  
Incandescent LPs 2300W  
Fluorescent tube LPs, not compensated 1000W  
Parallely comp. fluorescent tube LPs 290W (tot capacity 35 µF)  
Compact, fluorescent LPs 105W (7 x 15W)  
LED max n° 15 x 4 W / 10 x 8 W / 7 x 15 W
- Max cross-section of wires to terminals: 2.5 mm<sup>2</sup>
- Protection degree: IP20 - IP30 (with terminal covers)  
IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II 
- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 15 days
- Type of reserve: NiMH rechargeable battery
- Time tolerance: ± 1 sec/day
- Operating temperature limits: 0°C +55°C
- Storing temperature: -10°C +65°C
- Type of installation: DIN rail / wall-mounted / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: programming keys, ON/OFF key
- Clock setting accuracy: digital for hours/minutes
- Daylight saving time change: automatic
- Dimensions (L x W x H) 35 x 60 x 128 mm

**Note: Art. 0022/D15 - 0024/D15 can be installed in rear of switchboard with accessory 1PA KTMP/2 (option)**



### 110 0012D15 - Daily - 72x72


### 110 0016D15 - Weekly - 72x72

### 110 0012D15/M230 - Daily - 60x60 Module

### 110 0012D15/M230 - Weekly - 60x60 Module

#### Digital time switch with tappets and display



- Power supply 230V c.a. 50 - 60Hz
- Contact output: 16 (2) A / 250V a.c.
- Max programs: 96 (daily) - 672 (weekly)
- ON-OFF minimum connection time: 15 minutes
- Visualisation: LCD circular display
- Maximum lighting load: 3500VA (each contact)  
Incandescent LPs 2300W  
Fluorescent tube LPs, not compensated 1000W  
Parallely comp. fluorescent tube LPs 290W (tot capacity 35 µF)  
Compact, fluorescent LPs 105W (7 x 15W)  
LED max n° 15 x 4 W / 10 x 8 W / 7 x 15 W
- Max cross-section of wires to terminals: 2.5 mm<sup>2</sup>
- Protection degree: IP40 (wall-mounted, on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II 
- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 15 days
- Type of reserve: NiMH rechargeable battery
- Time tolerance: ± 1 sec/day
- Operating temperature limits: 0°C +50°C
- Storing temperature: -10°C +50°C
- Type of installation: wall-mounted / on rear of switchboard / recess mounting
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: programming keys, ON/OFF key, reset key
- Clock setting accuracy: digital for hours/minutes
- Dimensions (L x W x H) 72 x 67.5 x 101 mm (72x72)  
60 x 26 x 60 mm (60x60)

**Note: Art. 0012D15 - 0016D15 can be installed on rear of switchboard with accessory 1PA SG001 (option)**



# ELECTROMECHANICAL TIME SWITCHES



**110 0017 - Daily - Without charge reserve**  
**110 0018 - Daily - With charge reserve**  
**110 0020 - Weekly - With charge reserve**  
**Time switch with tappets - 72x72**

**110 0017M - Daily - Without charge reserve**  
**110 0018M - Daily - With charge reserve**  
**110 0020M - Weekly - With charge reserve**  
**Time switch with tappets - 60x60 Module**



- Power supply 230V c.a. 50 - 60Hz
- Contact output: 16 (2) A / 250V a.c.
- Max programs: 96 (daily) - 84 (weekly)
- ON-OFF minimum connection time: 15 minutes (daily)  
120 minutes (weekly)
- Visualisation: mechanical tappets ring
- Max commutable power resistive load 3500 W  
inductive load ( $\cos\phi \geq 0.6$ ) 500 VA
- Max cross-section of wires to terminals: 1.5 ... 4 mm<sup>2</sup>
- Protection degree: IP30
- Type of output: terminals with captive screw
- Insulation class: II
- Charge reserve: 72 hours
- Type of reserve: NiMH rechargeable battery
- Time tolerance:  $\pm 1$  sec/day
- Operating temperature limits: -10°C +50°C
- Storing temperature: -10°C +50°C
- Type of installation: DIN rail / wall-mounted / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: mechanical tappets, ON / Timer /OFF selector
- Clock indication: only for daily models
- Dimensions (L x W x H) 72 x 48 x 101 mm (72x72)  
60 x 26 x 60 mm (60x60)

**Note: Art. 0017 - 0018 - 0020 can be installed on rear of switchboard with accessory 1PA SM72 (option)**



**110 0170 - Daily without charge reserve - 1 DIN**  
**110 0171 - Daily with charge reserve - 1 DIN**  
**110 0021 - Daily without charge reserve - 2 DIN**  
**110 0022 - Daily with charge reserve - 2 DIN**  
**110 0024 - Weekly with charge reserve - 2 DIN**  
**Time switch with tappets**

- Power supply 230V c.a. 50 - 60Hz
- Contact output: 16 (4) A / 250V a.c.
- Max programs: 48 - 96 (0170 / 0171)
- ON-OFF minimum connection time: 30 minutes (daily)  
15 minutes (0170 / 0171) - 3.5 hours (weekly)
- Visualisation: mechanical tappets ring
- Max commutable power resistive load 3500 W  
inductive load ( $\cos\phi \geq 0.6$ ) 1000 VA
- Max cross-section of wires to terminals: 4 mm<sup>2</sup>
- Protection degree: IP20 - IP30 (with terminal covers)  
IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II
- Charge reserve: max 150 hours - 100 hours (0171)
- Type of reserve: NiMH rechargeable battery
- Time tolerance:  $\pm 1$  sec/day
- Operating temperature limits: -10°C +50°C
- Storing temperature: -10°C +50°C
- Type of installation: DIN rail / wall-mounted / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: mechanical tappets  
timer / ON selector (0170/0171)  
ON / Timer /OFF selector
- Clock setting accuracy: mechanical with reference index
- Programming: mechanical key ring (blocks 15' / 120')
- Dimensions (L x W x H) 17.5 x 60 x 128 mm 1 DIN  
35 x 60 x 90 mm 2 DIN



**Time switch with tappets with ON/OFF min. 15 minutes**  
**110 0031 - Daily without charge reserve - 2 DIN**  
**110 0032 - Daily with charge reserve - 2 DIN**  
**110 0034 - Weekly with charge reserve - 2 DIN**



- Power supply 230V c.a. 50 - 60Hz
- Contact output: 16 (4) A / 250V a.c.
- Max programs: 96
- ON-OFF minimum connection time: 15 minutes (daily)  
105 minutes (weekly)
- Visualisation: mechanical tappets ring
- Max commutable power resistive load 3500 W  
inductive load ( $\cos\phi \geq 0.6$ ) 1000 VA
- Max cross-section of wires to terminals: 2.5 mm<sup>2</sup>
- Protection degree: IP20, IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II
- Charge reserve: max 150 hours
- Type of reserve: NiMH rechargeable battery
- Time tolerance:  $\pm 1$  sec/day
- Operating temperature limits: -10°C +50°C
- Storing temperature: -10°C +50°C
- Type of installation: DIN rail / wall-mounted / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: mechanical tappets  
ON / Timer /OFF selector
- Clock setting accuracy: mechanical with reference index
- Programming: mechanical key ring (blocks 15')
- Dimensions (L x W x H) 35 x 60 x 90 mm

# PLUG / SOCKET TIME SWITCHES - ACCESSORIES

## STAIRCASE TIMERS



- 110 0055 - Daily - Shuko Germany**
- 110 0056 - Weekly - Shuko Germany**
- 110 0053 - Daily - plug Italy**
- 110 0054 - Weekly - plug Italy**
- Plug time switch 16 A**

- Power supply 230V a.c. 50/60Hz
- Contacts 16 A
- Maximum commutable power 3500 VA
- Minimum intervention interval 15 min
- ON / TIMER control

### 1PA SG001 Plastic profile for installing 72x72 time switches on rear of switchboard



#### 1PA KTMP2 Kit for installation of 2 DIN modules on rear of switchboard

Kit including: 2 hooks + finishing front for installing 2 DIN modules on the rear of the switchboard



#### 1PA KTMP4 Kit for installation of 4 DIN modules on rear of switchboard

Kit including: 2 hooks + finishing front for installing 4 DIN modules on the rear of the switchboard



#### 11T 1051 Staircase timer, wall-mounted

Electronic timer switch, can perfectly replace the three-wire electromechanical models made in Germany, Spain, etc

- Power supply 230V a.c. +/-10% 50/60Hz
- 1 polarized NO contact output: 16(3) A / 250 V a.c.
- Maximum lighting load: incandescent LPs 2300W  
Fluorescent LPs 290W  
Electronic fluorescent LPs 105W (7 x 15W)
- Adjustable timing from 30 sec at 7 min +/-10%
- Restorable
- Max 30 external START and push buttons (also luminous)
- Fixed light switch
- Wall or panel mounting
- 3-wire connection - cables up to 2.5 mm<sup>2</sup>
- Dimensions (L x W x H) 88 x 55 x 110 mm



#### 11T 1066 Timer switch with multifunction LCD display for an easy and finer adjustment of the functions

- Power supply 230V a.c. 50 / 60Hz
- 1 polarized NO contact output: 16(3) A / 250 V a.c.
- Maximum lighting load: Incandescent LPs 2300W  
Fluorescent LPs 290 W  
Electronic fluorescent LPs 105 W (7 x 15W)
- Adjustable timing from 1 sec at 99 min to 59 sec
- Restorable
- Cleaning function 30min (modifiable from 1min to 99 min)
- Deactivation push from 300 msec to 15 sec
- Max 35 luminous push buttons
- Protection degree IP 40
- Fixed relay key
- Hour counter function for lamp change
- Input status display (open / close)
- Timing shown in the display
- Time scale indicators: h m s
- 3 or 4 wire connection - cables from 1 mm<sup>2</sup> to 2.5 mm<sup>2</sup>
- Dimensions (L x W x H) 17.5 x 60 x 90 mm



#### 11T 1062 Staircase timer 1 DIN

- Power supply 230V a.c. +/- 10%, 50 Hz
- Type of output relay with NO single-pole polarized contact ZERO CROSSING 16A / 250V a.c.
- Maximum lighting load: Incandescent LPs 3600W  
Fluorescent tube LPs, not compensated 1000W  
Parallely comp. fluorescent tube LPs 1000W (tot capacity 140 µF)
- Time adjustment: from 30 seconds to 20 minutes
- Ability to activate stair cleaning function
- Maximum wire section at terminals: 1 mm<sup>2</sup> ÷ 6 mm<sup>2</sup>
- Protection degree: IP 20
- Operating temperature limits of module: -10 °C ÷ +55 °C
- Storage temperature limits: -20 °C ÷ +65 °C
- Type of installation: DIN rail
- Maximum current consumption of illuminated pushbuttons 150mA with overload protection
- CE reference standards: LVD/EMC EN60669-2-3  
EN60669-2-1
- Dimensions (L x W x H): 17,5 x 60 x 90 mm



#### 11T 1067 Multifunction staircase timer 1 DIN

- Power supply 230V a.c. +/- 10%, 50 Hz
- Type of output relay with NO single-pole polarized contact ZERO CROSSING 16A / 250V a.c.
- Maximum lighting load: Incandescent LPs 3600W  
Fluorescent tube LPs, not compensated 1000W  
Parallely comp. fluorescent tube LPs 1000W (tot capacity 140 µF)
- Time adjustment: from 30 seconds to 20 minutes
- Switch off warning in the TW and TWI operation modes
- Ability to activate stair cleaning function in the T and TW operation modes
- Maximum wire section at terminals: 1 mm<sup>2</sup> ÷ 6 mm<sup>2</sup>
- Protection degree: IP 20
- Operating temperature limits of module: -10 °C ÷ +55 °C
- Storage temperature limits: -20 °C ÷ +65 °C
- Type of installation: DIN rail
- Maximum current consumption of illuminated pushbuttons 150mA with overload protection
- CE reference standards: LVD/EMC EN60669-2-3  
EN60669-2-1
- Dimensions (L x W x H): 17,5 x 60 x 90 mm

# PHOTOCELL LIGHTING CONTROL SWITCHES



## 1IC 7242

### Photocell lighting control switch for wall-mounting and/or pole installation

- Power supply 230V a.c. 50 / 60Hz
- Outdoor installation
- Output 1 polarized NO contact: 16 (2) A / 250Va.c.
- Connection with cables up to 2.5 mm<sup>2</sup>
- Wiring with shielded cable diameter 4-9 mm
- Intervention threshold adjustment trimmer, 2 - 200 Lux
- Threshold signalling LED
- Anti-UV opaline housing
- Protection degree IP 54
- Dimensions (Ø L x W x H) Ø 82 x 97 x 101 mm



## 1IC 7243

### Photocell lighting control switch with replaceable control module for wall-mounting and/or pole installation

Product being particularly suitable to facilitate system maintenance personnel: the control part that can be removed from the base of the contacts allows a quick intervention in the product without disconnecting the load

- Power supply 230V a.c. 50/60Hz
- Outdoor installation
- Output 1 polarized NO contact: 16 (2) A / 250Va.c.
- Connection with cables up to 2.5 mm<sup>2</sup>
- Wiring with shielded cable diameter 7-11 mm
- Pre-calibrated at the factory at 10 Lux ± 20%
- Intervention threshold adjustment trimmer, 2 - 200 Lux
- Threshold signalling LED
- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions (L x W x H) 72 x 37.5 x 147 mm



## 1PR 7243M Spare module for photocell lighting control switch item 7243

- Power supply 230V a.c. 50/60Hz
- Outdoor installation
- Output 1 polarized NO contact: 16 (2) A / 250Va.c.
- Pre-calibrated at the factory at 10 Lux ± 20%
- Intervention threshold adjustment trimmer, 2 - 200 Lux
- Threshold signalling LED Anti-UV opaline housing
- Dimensions (L x W x H) 72 x 37.5 x 80 mm



## 1IC 7245

### Photocell lighting control switch model "FEBO" for wall-mounting and/or pole installation

The factory 10 LUX calibration prevents difficult interventions by the installer

- Power supply 230V a.c. 50 / 60Hz
- Outdoor installation
- Output 1 polarized NO contact: 16 (2) A/250Va.c.
- Connection with cables up to 2.5 mm<sup>2</sup>
- Wiring with shielded cable diameter 7-11 mm
- Pre-calibrated at the factory at 10 Lux ± 20%
- Intervention threshold adjustment trimmer, 2 - 200 Lux
- Threshold signalling LED
- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions (L x W x H) 55 x 45 x 106 mm



## 1IC 7051

### Photocell lighting control switch with adjustment 2-10.000Lux, 2 DIN

It allows progressively lighting street tunnels

- Power supply 230V a.c. 50 / 60Hz DIN assembly plus outdoor probe
- Output 1 changeover contact, potential-free: 16 (2) A / 250V a.c.
- Connection with cables up to 2.5 mm<sup>2</sup>
- Adjustment range 2-100 / 2-1000 / 2-10.000 Lux (3 scales)
- Activation delay 8 sec ± 10%
- Deactivation delay 38 sec ± 10%
- Threshold calibration signalling LED
- Operation signalling LED Intervention threshold adjustment trimmer
- Dimensions DIN (L x W x H) 35 x 60 x 90 mm

#### EXTERNAL PROBE

- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions of the probe (L x W x H) 28 x 48 x 56 mm



## 1IC 7052

### Photocell lighting control switch with adjustment 2-200 Lux, 2 DIN

Provided with hysteresis and activation / deactivation delays to prevent false switching

- Power supply 230V a.c. 50 / 60Hz DIN assembly plus outdoor probe
- Output 1 changeover contact, potential-free: 16 (2) A / 250V a.c.
- Connection with cables up to 2.5 mm<sup>2</sup>
- Adjustment range 2-200 Lux adjustable
- Activation delay 8 sec ± 10%
- Deactivation delay 38 sec ± 10%
- Threshold calibration signalling LED
- Operation signalling LED Intervention threshold adjustment trimmer
- Dimensions DIN (L x W x H) 35 x 60 x 90 mm

#### EXTERNAL PROBE

- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions of the probe (L x W x H) 28 x 48 x 56 mm



## 1IC 7053N

### Photocell lighting control switch with adjustment 0÷1.000 lux - 1 DIN

High performance with minimum dimensions for controlling inductive loads like fluorescent lamps or LEDs

- Power supply: 230V a.c. +/- 10%, 50 Hz
- Type of output: relay with NO potential free contacts (Cadmium free) 16A / 250V a.c. with zero crossing
- Maximum wire section at terminals: 1 mm<sup>2</sup> ÷ 6 mm<sup>2</sup>
- Threshold intervention (lux) adjustment: 0÷1.000 Lux
- Double adjustment scale
- Selector for operating mode selection:
  - always ON
  - always OFF
  - Threshold adjustment: 0÷100 Lux
  - Threshold adjustment: 0÷1.000 Lux
- Trimmer for setting threshold adjustment
- Delay in switching on / off to avoid false switching:
  - ON delay: 15 seconds
  - OFF delay: 30 seconds
- LED operating status
- Cadmium free relay
- Dimensions module (L x W x H): 17,5 x 60 x 90 mm

### EXTERNAL PROBE

- Probe with Cadmium free precision photodiode sensor anti-UV opaline housing
- Protection degree IP 65
- Dimensions probe (L x W x H): 28 x 48 x 56 mm




## 1IC 7054 - 1 channel

## 1IC 7254 - 2 channels

### "Lux-Time" twilight time switch - 2 DIN

External probe IP 65 included.

- Power supply 230V c.a. ±10% 50Hz
- Contact output: limited current NO contact ZERO CROSSING 16 (2) A / 250V a.c.
- Max programs: 45
- ON-OFF minimum connection time: 1 minute
- Visualisation: 1" 1/3 backlit LCD display
- Maximum lighting load: Incandescent LPs 3000W  
Fluorescent tube LPs, not compensated 1100W  
Parallely comp. fluorescent tube LPs 900W (tot capacity 125 µF)  
Compact, fluorescent LPs 7 W ÷ 23 W (max. 23 lamp.)  
LED 25 x 4 W / 12 x 8 W / 8 x 15 W
- Max cross-section of wires to terminals: 6 mm<sup>2</sup>
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II 
- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 6 years
- Type of reserve: CR2032 replaceable battery
- Time tolerance: ± 0,5 sec/day
- ON / OFF delay adjustable 1 sec / 59 min
- Operating temperature limits: -20°C +60°C
- Storing temperature: -30°C +80°C
- Type of installation: DIN rail / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: programming keys and ON/OFF key
- Clock setting accuracy: digital for hours/minutes
- Daylight saving time change: 4 geographic areas
- Dimensions (L x W x H) 35 x 60 x 90 mm

backlit display



## ACCESSORIES

### 1PR EMD01 "EMD" programming key

External memory to upload / download programs



### 1PR 6092 Outdoor spare cadmium free probe for DIN photocell lighting control switch 1IC 7053N, 1IC 7052, 1IC 7054, 1IC 7254 (production XX/19)

- Outdoor wall-mount and / or pole installation
- Connection with cables from 0.75 mm<sup>2</sup> to 2.5 mm<sup>2</sup>
- Wiring with shielded cable diameter 4-8 mm
- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions (L x W x H) 28 x 48 x 56 mm



### 1PR 6093 Outdoor spare cadmium free probe for DIN photocell lighting control switch 1IC 7051 (production XX/19)

- Outdoor wall-mount and / or pole installation
- Connection with cables from 0.75 mm<sup>2</sup> to 2.5 mm<sup>2</sup>
- Wiring with shielded cable diameter 4-8 mm
- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions (L x W x H) 28 x 48 x 56 mm

# GAS SAFETY



## 1GA 47917MET/P - Natural gas CH4

### 1GA 47917GPL/P - LPG

#### "ZEFIRO" series wall-mounted and / or Semi-recessed detector with BUS output

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 8 (2) A / 250Va.c.
- Microprocessor with fume selection program to prevent false alarms
- Microprocessor with timer to signal product service every 5 years
- Remote sensor recognition (BUS system)
- Digital BUS output for signaller control (max 15)
- Interconnection length max 800m (2 x 1.5 mm<sup>2</sup>)
- Alarm memory
- ON / TEST selector
- Self-diagnosis test
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas concentration LED on 3 signalling levels
- Intervention level: 5.000 ppm 10% LIE (CH4)  
1.860 ppm 10% LIE (LPG)
- Wall-mounted IP 42
- Dimensions (L x W x H) 120 x 40 x 82 mm
- Semi-recessed installation with accessory IP 40
- Dimensions (L x W x H) 120 x 27.5 x 82 mm



## 1GA 48917MET/P - Natural gas CH4

### 1GA 48917GPL/P - LPG

#### "ZEFIRO" series wall-mounted and / or Semi-recessed signaller with BUS input series

- Power supply 230V a.c. 50-60Hz
- Microprocessor with fume selection program to prevent false alarms
- Microprocessor with timer to signal product service every 5 years
- Digital BUS input
- Alarm memory
- ON / TEST selector
- Self-diagnosis test
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas concentration LED on 3 signalling levels
- Intervention level: 5.000 ppm 10% LIE (CH4)  
1.860 ppm 10% LIE (LPG)
- Wall-mounted IP 42
- Dimensions (L x W x H) 120 x 40 x 82 mm
- Semi-recessed installation with accessory IP 40
- Dimensions (L x W x H) 120 x 27.5 x 82 mm



## 1GA 50917MET/P - Natural gas CH4

### 1GA 50917GPL/P - LPG

#### "ZEFIRO" series wall-mounted and / or Semi-recessed detector with BUS output

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 8 (2) A / 250Va.c.
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas presence indicator LED
- Intervention level: 5.000 ppm 10% LIE (CH4)  
1.860 ppm 10% LIE (LPG)
- Wall-mounted IP 42
- Dimensions (L x W x H) 120 x 40 x 82 mm
- Semi-recessed installation with accessory IP 40
- Dimensions (L x W x H) 120 x 27.5 x 82 mm



## 1GA 51917MET/P - Natural gas CH4

### 1GA 51917GPL/P - LPG

#### "ZEFIRO" series wall-mounted and / or Semi-recessed natural gas (CH4) signaller

- Power supply 230V a.c. 50-60Hz
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas presence indicator LED
- Signalling level: 5.000 ppm 10% LIE  
1.860 ppm 10% LIE (LPG)
- Wall-mounted IP 42
- Dimensions (L x W x H) 120 x 40 x 82 mm
- Semi-recessed installation with accessory IP 40
- Dimensions (L x W x H) 120 x 27.5 x 82 mm

## 1PA BSGA01 Base for "ZEFIRO" series semi-recessed installation

Base for semi-recessed installation in boxes: round and/or rectangular

## GAS SAFETY



### 1GA 50916/CHCO

#### Wall-mounted carbon monoxide (CO) and natural gas (CH4) detector

The detector can detect two gases: natural gas (CH4) and carbon monoxide (CO)

Intervention sensitivity:

- natural gas at 10% of the lower explosion limit
- carbon monoxide, when the maximum allowed 300ppm CO concentration is exceeded, or rather in case low but damaging concentrations 30ppm for 2 hours persist for long periods in the premises.

- Power supply 230V a.c. 50-60Hz
- 2 potential-free changeover contacts output: 5 (2) A / 250Va.c.
- Natural gas catalytic sensor
- Natural gas intervention level 5000 ppm 10% LIE
- Semi-conductor sensor for CO
- CO intervention level 30 / 300 (30ppm after 2 hours – 300ppm immediately)
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas presence indicator LED (2 different)
- Protection degree IP 42
- Dimensions (L x W x H) 115 x 50 x 150 mm



### 1GA 50916/CO

#### Wall-mounted carbon monoxide (CO) detector

Intervention sensitivity to carbon monoxide, when the maximum allowed 300ppm CO concentration is exceeded, or rather in case low but damaging concentrations 30ppm for 2 hours persist for long periods in the premises.

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 5 (2) A / 250Va.c.
- Semi-conductor sensor for CO
- CO intervention level 30 / 300 (30ppm after 2 hours – 300ppm immediately)
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas presence indicator LED
- Protection degree IP 42
- Dimensions (L x W x H) 115 x 50 x 150 mm

## KITS



### 1GA 50917MET/1.2

#### Wall-mounted natural gas detector kit with 1/2" NO solenoid valve

Kit including:

no. 1 1GA 50917MET/P with no. 1 1EV EV020



### 1GA 50917GPL/1.2

#### Wall-mounted LPG gas detector kit with 1/2" NO solenoid valve

Kit including

no. 1 1GA 50917GPL/P with no. 1 1EV EV020



### 1GA 50917MET/3.4

#### Wall-mounted natural gas detector kit with 3/4" NO solenoid valve

Kit including

no. 1 1GA 50917MET/P with no. 1 1EV EV021



### 1GA 50917GPL/3.4

#### Wall-mounted LPG gas detector kit with 3/4" NO solenoid valve

Kit including

no. 1 1GA 50917GPL/P with no. 1 1EV EV021



### 1GA 100M - 1 zone

### 1GA 300M - 3 zones

#### Control unit for wall or panel installation

Microprocessor control units to create a complete supervision and control system, with high flexibility. Equipped with a series of micro switches through which it is possible: to eliminate the probe when not installed or faulty, detect which type of gas (Toxic or Explosive), choose the functioning of the relay (pulses or continuous), choose the insertion or deactivation of Positive Safety



- Power supply 230V a.c. 50Hz
- Battery-operated secondary power supply 12V d.c. ±10%
- Pre-alarm output relay in exchange
- Output relay ON / OFF
- 1st alarm set for all the probes at 8% of the L.E.L. (120ppm)
- 2nd alarm set for all the probes at 13% of the L.E.L. (200ppm)
- General alarm set at 20% of the L.E.L. (300ppm)
- 1 connectable probe of type: catalytic, electrochemical, semiconductor
- Analogic input signal 4mA ÷ 20mA
- Accuracy 1% FS
- Working temperature -10 ° C - + 60 ° C
- Max probe distance 100m
- TEST command
- Protection degree IP 44
- Variable color display according to work status (1GA300M)
- Dimensions (L x W x H) 144 x 108 x 114 mm



**1GA 2001**  
**1-zone control unit for toxic and explosive gases - 6 DIN**

Microprocessor control unit manufactured to remotely control the presence of explosive or toxic gases by means of a probe. Precise self-diagnosis systems perform a continuous control of probe conditions and connection.

- Power supply 230V a.c. 50Hz ±10% Battery-operated secondary power supply 12V d.c. ±10%
- 3 potential-free contact outputs:  
10A 250 V a.c. resistive - 5A 30V d.c. resistive
- Pre-alarm 13% of LIE explosive gases and 200ppm for CO
- Alarm 20% of LIE explosive gases and 300ppm for CO
- 1 connectable probe, type: catalytic, electrochemical cell, pellistor, semiconductor
- Analogue input signal 4 mA ÷ 20 mA
- Max probe distance 100m
- RESET and TEST controls
- Signalling buzzer
- Operation status indicator LED
- Gas type indicator LED
- Main alarm and pre-alarm indicator LED
- Gas concentration indicator LED with thresholds
- Dimensions (L x W x H) 105 x 58 x 90 mm



**1GA 2002**  
**2-zones control unit for toxic and explosive gases - 6 DIN**

Microprocessor control unit manufactured to remotely control the presence of explosive and/or toxic gases by means of probes. Precise self-diagnosis systems perform a continuous control of probe conditions and connection.

- Power supply 230V a.c. 50Hz ±10% Battery-operated secondary power supply 12V d.c. ±10%
- 3 potential-free contact outputs:  
10A 250 V a.c. resistive - 5A 30V d.c. resistive
- Pre-alarm 13% of LIE explosive gases and 200ppm for CO
- Alarm 20% of LIE explosive gases and 300ppm for CO
- 2 connectable probes, type: catalytic, electrochemical cell, pellistor, semiconductor
- Analogue input signal 4 mA ÷ 20 mA
- Max probe distance 100m
- RESET and TEST controls
- Signalling buzzer
- Operation status indicator LED
- Gas type indicator LED
- Main alarm and pre-alarm indicator LED
- Gas concentration indicator LED with thresholds in each zone
- Dimensions (L x W x H) 105 x 58 x 90 mm



**1GA 2004**  
**4-zones control unit for toxic and explosive gases - 9 DIN**

Microprocessor control unit manufactured to remotely control the presence of explosive and/or toxic gases by means of probes. Precise self-diagnosis systems perform a continuous control of probe conditions and connection.

- Power supply 230V a.c. 50Hz ±10% Battery-operated secondary power supply 12V d.c. ±10%
- 3 potential-free contact outputs:  
10A 250 V a.c. resistive - 5A 30V d.c. resistive
- Pre-alarm 13% of LIE explosive gases and 200ppm for CO
- Alarm 20% of LIE explosive gases and 300ppm for CO
- 4 connectable probes, type: catalytic, electrochemical cell, pellistor, semiconductor
- Analogue input signal 4 mA ÷ 20 mA
- Max probe distance 100m
- RESET and TEST controls
- Signalling buzzer
- Operation status indicator LED
- Gas type indicator LED
- Main alarm and pre-alarm indicator LED
- Display that shows the gas concentration in sequence for each zone
- Continuous 2" scanning in each probe
- Dimensions (L x W x H) 158 x 58 x 90 mm



**1GA 4200MET - Natural gas CH4**  
**1GA 4200GPL - LPG**  
**Catalytic sensor - IP55**

Microprocessor probe with AUTOMATIC calibration and self-diagnosis to adapt to harsh environments and variable temperatures to prevent false alarms due to irregular events.

- Power supply 12-24V d.c. +/- 10%
- Catalytic sensor for NATURAL gas (4200MET) or LPG (4200GPL) having a duration of 5 years
- Detector measurement field 0÷20% LIE
- Analogue output signal 4 mA ÷ 20 mA
- Replaceable sensor
- Protection degree IP 55
- Max control unit distance 100m
- Probe body material: self-extinguishing ABS
- Working temperature limit -10°C +40°C
- LED indicator: gree regular, yellow warning, red alarm
- Dimensions (L x W x H) 75 x 58 x 114 mm



**1GA 4200MET/A - Natural gas CH4**  
**1GA 4200GPL/A - LPG**  
**Catalytic sensor housing made in die-cast aluminium - IP66**

Microprocessor probe with AUTOMATIC calibration and self-diagnosis to adapt to harsh environments and variable temperatures to prevent false alarms due to irregular events.

- Power supply 12-24V d.c. +/- 10%
- Catalytic sensor for NATURAL gas (4200MET/A) or LPG (4200GPL/A) having a duration of 5 years
- Detector measurement field 0÷20% LIE
- Analogue output signal 4 mA ÷ 20 mA
- Replaceable sensor
- Protection degree IP 66
- Max control unit distance 100m
- Probe body material: aluminium
- Working temperature limit -10°C +40°C
- Dimensions (L x W x H) 100 x 60 x 100 mm



## 1GA 4400CO CO Sensor - IP 55

Microprocessor probe to detect TOXIC GASES, such as carbon monoxide, with self-diagnosis. It is used when the maximum allowed 300ppm CO concentration is exceeded, or rather in case low but damaging concentrations 30ppm for 2 hours persist for long periods in the premises.

- Power supply 12-24V d.c. +/- 10%
- Electrochemical cell
- Catalytic sensor for LPG gas having a duration of 5 years
- Detector measurement field 0÷20% LIE
- Analogue output signal 4 mA ÷ 20 mA
- Replaceable sensor
- Alarm 300 ppm
- Protection degree IP 55
- Max control unit distance 100m
- Probe body material: aluminium
- Working temperature limit -20°C +50°C
- Power supply indicator LED
- Dimensions (L x W x H) 78 x 58 x 114 mm



## 1GA 4400CO/A CO Sensor housing made in die-cast aluminium - IP 66

Microprocessor probe to detect TOXIC GASES, such as carbon monoxide, with self-diagnosis. It is used when the maximum allowed 300ppm CO concentration is exceeded, or rather in case low but damaging concentrations 30ppm for 2 hours persist for long periods in the premises.

- Power supply 12-24V d.c. +/- 10%
- Electrochemical cell
- Catalytic sensor for LPG gas having a duration of 5 years
- Detector measurement field 0÷20% LIE
- Analogue output signal 4 mA ÷ 20 mA
- Replaceable sensor
- Alarm 300 ppm
- Protection degree IP 66
- Max control unit distance 100m
- Probe body material: aluminium
- Working temperature limit -20°C +50°C
- Dimensions (L x W x H) 100 x 60 x 100 mm



## 1GA 895MET - Natural gas CH<sub>4</sub> 1GA 895GPL - LPG ATEX explosion-proof probe

ATEX certified gas detection probe with control prerogative with catalytic technology sensors for explosive and toxic gas. Probe managed by a microprocessor that provides an alarm signal to the control panel to which it is connected and allows self-diagnosis and automatic calibration, to maintain maximum detection accuracy over time. The self-calibration allows the probe to adapt in harsh environments and at variable temperatures, avoiding false alarms due to abnormal events.



II 2 GD Ex d tD IIC  
T6 X -10 < T amb  
<+60°C

- Power supply 12-24V d.c. +/- 10%
- Catalytic sensor
- Replaceable sensor
- Detector measurement field 0÷20%
- Analogue output signal 4 mA ÷ 20 mA
- Protection degree IP 66
- Max control unit distance 100m
- Probe body material: aluminium
- Working temperature limit -10°C +60°C
- Dimensions (L x W x H) 100 mm

## ACCESSORIES

**1GA HE55ES Replacement sensor IP 55 for 1GA 4200MET, 1GA 4200GPL, 1GA 4400CO**

**1GA HE66ES Replacement sensor IP 66 for 1GA 4200MET/A, 1GA 4200GPL/A, 1GA 4400CO/A**

**1GA HEATES Replacement sensor for 1GA 895MET e 1GA 895GPL**





**1GA 6010**  
**Optical smoke detector**

- Power supply 12-24V c.c. ±10%
- Low profile 3,2 cm
- Mounting on universal base ready for 16 mm tubes
- LED optical detector output
- Functional test by laser test tool method
- Internal reed functional test
- Dual LED status indicators (alarm / fault)
- EN 54 Certification part 7/9
- Protection degree IP20
- Overall dimensions (with base) mm Ø 102 x 43 mm



**1GA 6020**  
**Fixed temperature sensor 78 °C**

- Reaching the temperature of +78°C the alarm rings
- Power supply 12-24V c.c. ±10%
- Low profile
- Bicolor LED to signal the installation status
- Functional test by laser test tool method
- Mounting on universal base ready for 16 mm tubes
- Internal reed functional test
- Dual LED status indicators (alarm / fault)
- EN 54 Certification part 7/9
- Protection degree IP20
- Dimensions (with base) Ø 102 x 43 mm



**1GA 6030**  
**Combined detector with constant feed temperature**

- The alarm rings when there is a too quick increase of the temperature
- Power supply 12-24V c.c. ±10%
- Low profile
- Bicolor LED to signal the installation status
- Functional test by laser test tool method
- Mounting on universal base ready for 16 mm tubes
- Internal reed functional test
- Dual LED status indicators (alarm / fault)
- EN 54 Certification part 7/9
- Protection degree IP20
- Dimensions (with base) Ø 102 x 43 mm

**1PA BRA01 Fixing base**

**SEGNALLERS**



**1GA 6150**  
**Fire siren piezoelectric optical-acoustic for indoor installation**

- Power supply 12-24V c.c.
- Indoor piezoelectric optical-acoustic fire siren
- Flashing with FIRE writing
- Red ABS container
- 90 dB power, with three types of sound modulation type: siren, bell and pre-alarm
- EN 54-3 CPD certification



**1GA 6160**  
**Self powered fire siren for outdoor installation**

- Self-powered outdoor fireproof siren
- Steel container with lid in red polycarbonate
- Power 115 dB
- 12V 2Ah battery housing (not included)
- 24V DC power supply
- EN 54-3 certification



**1GA 6170**  
**Fire bell**

- Badenia electromechanical fire extinguishing 6 "red color complete with bracket for fixing
- 24V DC power supply
- EN 54-3 certification



**1GA 6180**  
**Resettable manual fire button for conventional systems**

- Resettable manual fire button for conventional systems complete with key for rearmament
- Transparent protection cover
- Red surface mounting bracket
- EN 54-11 CPD certification

**1PA BPA01 Wall base for fire button 6180**

- Support for red color surface mounting
- EN 54-11 CPD certification

**1PA BSA01 Replacement batteries for fire siren 6160**

- Nominal voltage 12V
- Nominal capacity 2Ah
- Maximum charging current 0,5A
- Dimensions (L x W x H) 178 x 34 x 60 mm

## GAS SOLENOID VALVES, with manual reset NORMALLY CLOSED N.C.

This solenoid valve is made in such a way as to ensure the gas shut-off for both danger signals sent by gas detectors (methane, LPG, carbon monoxide, and others) or safety thermostats, or for power failure in the network (black out). For added security this solenoid valve can be reset only in the presence of mains voltage and only when the gas detector is not detecting any danger.

**Simply powering the coil the valve does not open. You need to act manually on the reset mechanism.**

CE APPROVAL IN ACCORDANCE WITH EN 16 1

COMPLIANCE DIRECTIVE 2009 / 142 / EC (GAS DIRECTIVE)

6 BAR VERSION COMPLIANT WITH DIRECTIVE 97 / 23 / EC (PED DIRECTIVE)

COMPLIANCE WITH DIRECTIVE 94 / 9 / EC (ATEX DIRECTIVE)

COMPLIANCE WITH DIRECTIVE 2004 / 108 / EC (ELECTROMAGNETIC COMPATIBILITY)

COMPLIANCE WITH DIRECTIVE 2006 / 95 / EC (LOW VOLTAGE)



1EV EV040	N.C. ½" Solenoid valve DN15 threaded 230V 50-60 Hz brass body int. 66
1EV EV041	N.C. ¾" Solenoid valve N.C. DN20 threaded 230V 50-60 Hz brass body int. 66
1EV EV042	N.C. 1" Solenoid valve DN25 threaded 230V 50-60 Hz brass body int. 82
1EV EV045	N.C. 1"¼ Solenoid valve DN32 threaded 230V 50-60 Hz aluminium body int. 160
1EV EV043	N.C. 1"½ Solenoid valve DN40 threaded 230V 50-60 Hz aluminium body int. 160
1EV EV044	N.C. 2" Solenoid valve DN50 threaded 230V 50-60 Hz aluminium body int. 160
1EV EV060	N.C. Solenoid valve DN65 flanged 230V 50-60 Hz aluminium body int. 290
1EV EV061	N.C. Solenoid valve DN80 flanged 230V 50-60 Hz aluminium body int. 310
1EV EV062	N.C. Solenoid valve DN100 flanged 230V 50-60 Hz aluminium body int. 350
1EV EV063	N.C. Solenoid valve DN125 flanged 230V 50-60 Hz aluminium body int. 480
1EV EV064	N.C. Solenoid valve DN150 flanged 230V 50-60 Hz aluminium body int. 480
1EV EV065	N.C. Solenoid valve DN200 flanged 230V 50-60 Hz aluminium body int. 600
1EV EV066	N.C. Solenoid valve DN300 flanged 230V 50-60 Hz aluminium body int. 737

## GAS SOLENOID VALVES, with automatic reset NORMALLY CLOSED N.C. in Class "A"

Solenoid valves for gas, normally closed which open when the coil is powered and close when there is no power. These solenoid valves may be controlled by pressure switches, thermostats, etc.

CE APPROVAL IN ACCORDANCE WITH EN 16 1

COMPLIANCE DIRECTIVE 2009 / 142 / EC (GAS DIRECTIVE)

COMPLIANCE WITH DIRECTIVE 94 / 9 / EC (ATEX DIRECTIVE)

COMPLIANCE WITH DIRECTIVE 2004 / 108 / EC (ELECTROMAGNETIC COMPATIBILITY)

COMPLIANCE WITH DIRECTIVE 2006 / 95 / EC (LOW VOLTAGE)



1EV EV005	N.C. ½" solenoid valve DN15 threaded 230V 50-60 Hz aluminium body int. 70
1EV EV006	N.C. ¾" solenoid valve DN20 threaded 230V 50-60 Hz aluminium body int. 70
1EV EV007	N.C. 1" solenoid valve DN25 threaded 230V 50-60 Hz aluminium body int. 90
1EV EV017	N.C. 1" ¼ solenoid valve DN32 threaded 230V 50-60 Hz aluminium body int. 160
1EV EV008	N.C. 1" ½ solenoid valve DN40 threaded 230V 50-60 Hz aluminium body int. 160
1EV EV009	N.C. 2" solenoid valve DN50 threaded 230V 50-60 Hz aluminium body int. 160
1EV EV010	N.C. solenoid valve DN65 flanged 230V 50-60 Hz aluminium body int. 290
1EV EV011	N.C. solenoid valve DN80 flanged 230V 50-60 Hz aluminium body int. 310
1EV EV012	N.C. solenoid valve DN100 flanged 230V 50-60 Hz aluminium body int. 350

## GAS SOLENOID VALVES, with manual reset NORMALLY OPEN N.O.

The operation principle of the N.O. solenoid valves is very simple and therefore extremely safe. The electromagnetic coil, when powered, releases the valve closing device which is normally open.

**The reset is manual to check the causes for gas detection.**

During normal operation there is no power consumption, and therefore, in addition to energy saving, no component is subjected to usury.

6 BAR VERSION COMPLIANT WITH DIRECTIVE 97 / 23 / EC (PED DIRECTIVE)

COMPLIANCE WITH DIRECTIVE 94 / 9 / EC (ATEX DIRECTIVE)

COMPLIANCE WITH DIRECTIVE 2004 / 108 / EC (ELECTROMAGNETIC COMPATIBILITY)

COMPLIANCE WITH DIRECTIVE 2006 / 95 / EC (LOW VOLTAGE)



1EV EV020	N.O. ½" solenoid valve DN15 threaded 230V 50-60 Hz brass body int. 66
1EV EV021	N.O. ¾" solenoid valve DN20 threaded 230V 50-60 Hz brass body int. 66
1EV EV022	N.O. 1" solenoid valve DN25 threaded 230V 50-60 Hz brass body int. 82
1EV EV027	N.O. 1" ¼ solenoid valve DN32 threaded 230V 50-60 Hz aluminium body int. 160
1EV EV023	N.O. 1" ½ solenoid valve DN32 threaded 230V 50-60 Hz aluminium body int. 160
1EV EV024	N.O. 2" solenoid valve DN40 threaded 230V 50-60 Hz aluminium body int. 160
1EV EV025	N.O. solenoid valve DN65 flanged 230V 50-60 Hz aluminium body int. 280
1EV EV026	N.O. solenoid valve DN80 flanged 230V 50-60 Hz aluminium body int. 310

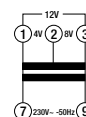
# INTERMITTENT SERVICE TRANSFORMERS



## 1TD TR10SI/QOD 10VA transformer for intermittent service, outputs 4-8-12V - 2 DIN

Power supply 230V a.c. – 50Hz  
Outputs 4-8-12V

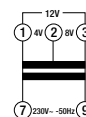
Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 35 x 60 x 90 mm



## 1TD TR15SI/QOD 15VA transformer for intermittent service, outputs 4-8-12V - 2 DIN

Power supply 230V a.c. – 50Hz  
Outputs 4-8-12V

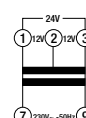
Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 35 x 60 x 90 mm



## 1TD TR15SI/DDV 15VA transformer for intermittent service, outputs 12-12-24V 2 DIN

Power supply 230V a.c. – 50Hz  
Outputs 12-12-24V

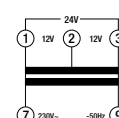
Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 35 x 60 x 90 mm



## 1TD TR30SI/DDV 30VA transformer for intermittent service, outputs 12-12-24V - 3 DIN

Power supply 230V a.c. – 50Hz  
Outputs 12-12-24V

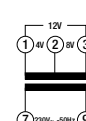
Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 52.5 x 60 x 90 mm



## 1TD TR01402/N 10VA transformer for intermittent service, outputs 4-8-12V, wall-mounted

Power supply 230V a.c. – 50Hz  
Outputs 4-8-12V  
Wall-mounted IP 30

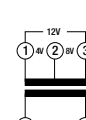
Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 35 x 60 x 128 mm



## 1TD TR01403/N 15VA transformer for intermittent service, outputs 4-8-12V, wall-mounted

Power supply 230V a.c. – 50Hz  
Outputs 4-8-12V  
Wall-mounted IP 30

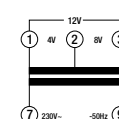
Installation on rear of switchboard IP40  
Dimensions (L x W x H) 35 x 60 x 128 mm



## 1TD TR01409/N 20VA transformer for intermittent service, outputs 4-8-12V, wall-mounted

Power supply 230V a.c. – 50Hz  
Outputs 4-8-12V  
Wall-mounted IP30

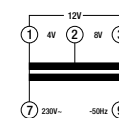
Installation on the rear of the switchboard IP40  
Dimensions (L x W x H) 52.5 x 60 x 128 mm



## 1TD TR01404/N 25VA transformer for intermittent service, outputs 4-8-12V, wall-mounted

Power supply 230V a.c. – 50Hz  
Outputs 4-8-12V  
Wall-mounted IP 30

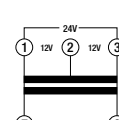
Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 52.5 x 60 x 128 mm



## 1TD TR01435/N 40VA transformer for intermittent service, outputs 12-12-24V, wall-mounted

Power supply 230V a.c. – 50Hz  
Outputs 12-12-24V  
Wall-mounted IP 30

Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 52.5 x 60 x 128 mm



# CONTINUOUS SERVICE TRANSFORMERS



## 1TD TR010/QOD 10VA transformer for continuous service, outputs 4-8-12V - 2 DIN

Power supply 230V a.c. – 50Hz  
Outputs 4-8-12V

Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 35 x 60 x 90 mm



## 1TD TR010/DDV 10VA transformer for continuous service, outputs 12-12-24V - 2 DIN

Power supply 230V a.c. – 50Hz  
Outputs 12-12-24V

Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 35 x 60 x 90 mm



## 1TD TR015/QOD 15VA transformer for continuous service, outputs 4-8-12V - 2 DIN

Power supply 230V a.c. – 50Hz  
Outputs 4-8-12V

Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 35 x 60 x 90 mm



## 1TD TR015/DDV 15VA transformer for continuous service, outputs 12-12-24V - 2 DIN

Power supply 230V a.c. – 50Hz  
Outputs 12-12-24V

Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 35 x 60 x 90 mm



## 1TD TR024/DDV 24VA transformer for continuous service, outputs 12-12-24V - 3 DIN

Power supply 230V a.c. – 50Hz  
Outputs 12-12-24V

Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 52.5 x 60 x 90 mm



## 1TD TR030/DDV 30VA transformer for continuous service, outputs 12-12-24V - 3 DIN

Power supply 230V a.c. – 50Hz  
Outputs 12-12-24V

Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 52.5 x 60 x 90 mm



## 1TD TR040/DDV 40VA transformer for continuous service, outputs 12-12-24V - 3 DIN

Power supply 230V a.c. – 50Hz  
Outputs 12-12-24V  
Installation on terminal board IP 20  
Wall-mounted IP 30

Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 52.5 x 60 x 90 mm



## 1TD TR063/DDV 63VA transformer for continuous service, outputs 12-12-24V - 6 DIN

Power supply 230V a.c. – 50Hz  
Outputs 12-12-24V  
Installation on terminal board IP 20  
Wall-mounted IP 30

Installation on rear of switchboard IP 40  
Dimensions (L x W x H) 105 x 60 x 90 mm

## ACCESSORIES

**1PA KTM02 Kit with base + terminal covers for 2 DIN transformers**

**1PA KTM03 Kit with base + terminal covers for 3 DIN transformers**

**1PA KTM06 Kit with base + terminal covers for 6 DIN transformers**

# CHIMES, DIN DON, BUZZERS



**1SU 4341 - 12V**  
**1SU 4351 - 230V**  
**Shrill chime**

- Power supply 12V a.c. (4341) - 230V a.c. (4351)
- Wall-mounted / semi-recessed installation in a round box
- Dimensions (D x W) 80 x 44 mm



**1SU 4491 - 12V**  
**1SU 4481 - 230V**  
**1SU 4411 - 12-230V**  
**Din Don**

- Power supply 12V a.c. (4491) - 230V (4481)  
12-230V a.c. (4411)
- Wall-mounted / semi-recessed installation in a round box
- Dimensions (L x W x H) 150 x 47 x 92 mm



**1SU 4421 - 230V**  
**1SU 4431 - 12V**  
**Din Don with buzzer**

- Power supply 230V a.c. (4421) - 12V a.c. (4431)
- Wall-mounted / semi-recessed installation in a round box
- Dimensions (L x W x H) 150 x 47 x 92 mm



**1SU 4441**  
**Din Don 12V with buzzer 12V and transformer 230-12V for low voltage control**

- Power supply 230V a.c.
- Wall-mounted / semi-recessed installation in a round box
- Dimensions (L x W x H) 150 x 47 x 92 mm



**1RI 0112AC/I**  
**Electromechanical step relay 12V a.c.**

- Power supply 12 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 1 contact 2 sequences

- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm



**1RI 0124AC/I**  
**Electromechanical step relay 24V a.c.**

- Power supply 24 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 1 contact 2 sequences

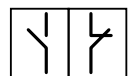
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm



**1RI 01230AC/I**  
**Electromechanical step relay 230V a.c.**

- Power supply 230V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 1 contact 2 sequences

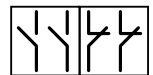
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm



**1RI 0212AC/I**  
**Electromechanical step relay 12V a.c.**

- Power supply 12 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 2 sequences

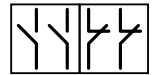
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm



**1RI 0224AC/I**  
**Electromechanical step relay 24V a.c.**

- Power supply 24 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 2 sequences

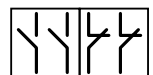
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm



**1RI 02230AC/I**  
**Electromechanical step relay 230V a.c.**

- Power supply 230V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 2 sequences

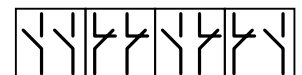
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm



**1RI 0412AC/I**  
**Electromechanical step relay 12V a.c.**

- Power supply 12 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences

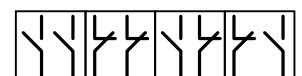
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm



**1RI 04230AC/I**  
**Electromechanical step relay 230V a.c.**

- Power supply 230V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences

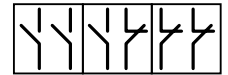
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm





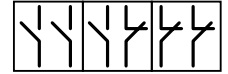
**1RI 0612AC/I**  
**Electromechanical step relay 12V a.c.**

- Power supply 12 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 3 sequences
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm



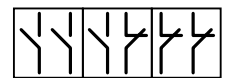
**1RI 0624AC/I**  
**Electromechanical step relay 24 V a.c.**

- Power supply 24 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 3 sequences
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm



**1RI 06230AC/I**  
**Electromechanical step relay 230V a.c.**

- Power supply 230V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 3 sequences
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) 45 x 22 x 45 mm



**1VA CPL001 Capacitor for luminous push buttons**

Capacitor to be used with step relays in case of systems with luminous push buttons



**1RI 01110ACPC**  
**Electromechanical step relay 110V a.c. ready for capacitor**

- Power supply 110 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 1 contact 2 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions (L x W x H) 35 x 22 x 45 mm



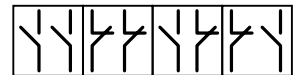
**1RI 01230ACPC**  
**Electromechanical step relay 230V a.c. ready for capacitor**

- Power supply 110 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 1 contact 2 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions (L x W x H) 35 x 22 x 45 mm



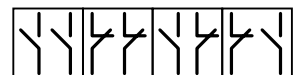
**1RI 04110ACPC**  
**Electromechanical step relay 110V a.c. ready for capacitor**

- Power supply 110 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions (L x W x H) 35 x 22 x 45 mm



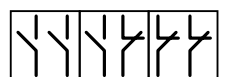
**1RI 04230ACPC**  
**Electromechanical step relay 230V a.c. ready for capacitor**

- Power supply 230V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions (L x W x H) 35 x 22 x 45 mm



**1RI 06110ACPC**  
**Electromechanical step relay 110V a.c. ready for capacitor**

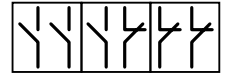
- Power supply 110 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions (L x W x H) 35 x 22 x 45 mm





**1RI 06230ACPC**  
**Electromechanical step relay 230V a.c. ready for capacitor**

- Power supply 230V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 3 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions (L x W x H) 35 x 22 x 45 mm



**1VA CPL002 Clip-on capacitor for luminous push buttons**

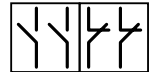
Clip-on capacitor to be used in step relays in case of systems with luminous push buttons

Dimensions (L x W x H) 35 x 22 x 17.5 mm



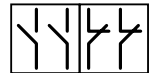
**1RI 0212AC/M**  
**Electromechanical step relay 12V - 1 DIN**

- Power supply 12 V a.c. 50 / 60 Hz
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 2 sequences
- Installation on DIN rail
- Control button
- Dimensions (L x W x H) 17.5 x 60 x 90 mm



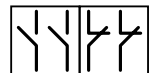
**1RI 0224AC/M**  
**Electromechanical step relay 24V - 1 DIN**

- Power supply 24 V a.c. 50 / 60 Hz
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 2 sequences
- Installation on DIN rail
- Control button
- Dimensions (L x W x H) 17.5 x 60 x 90 mm



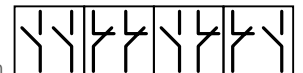
**1RI 02230AC/M**  
**Electromechanical step relay 230V - 1 DIN**

- Power supply 230V a.c. 50 / 60 Hz
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 2 sequences
- Installation on DIN rail
- Control button
- Dimensions (L x W x H) 17.5 x 60 x 90 mm



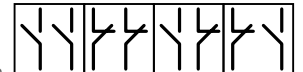
**1RI 0412AC/M**  
**Electromechanical step relay 12V - 1 DIN**

- Power supply 12 V a.c. 50 / 60 Hz
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Installation on DIN rail
- Control button
- Dimensions (L x W x H) 17.5 x 60 x 90 mm



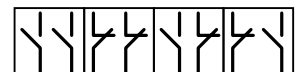
**1RI 0424AC/M**  
**Electromechanical step relay 24V - 1 DIN**

- Power supply 24 V a.c. 50 / 60 Hz
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Installation on DIN rail
- Control button
- Dimensions (L x W x H) 17.5 x 60 x 90 mm



**1RI 04230AC/M**  
**Electromechanical step relay 230V - 1 DIN**

- Power supply 230V a.c. 50 / 60 Hz
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Installation on DIN rail
- Control button
- Dimensions (L x W x H) 17.5 x 60 x 90 mm





# MULTIVOLTAGE, MULTIFUNCTION, TIMER RELAY 1 DIN



## 1RT 200/MT/MF

### Multifunction, multi-voltage timer relay with display - 1 DIN

- Power supply 12 - 24 - 48 - 110 - 230V a.c. 50 / 60Hz
- Controllable load (in AC1) 16 A / 250 V a.c.
- Controllable load (in AC15) 3 A / 240V a.c.
- Potential-free changeover contact
- 14 functions available in the display
- Double timer T1, T2 independently adjustable
- Backlit display, amber color
- Digital adjustment of work times, hours, minutes, seconds and tenths of seconds
- Load operation hour counter
- Dimensions (L x W x H) 17.5 x 60 x 90 mm



## 1RT 80S

### Multivoltage STAR DELTA timer relay 1 DIN

- It serves for delay ON of three-phase motor star/delta
- Time t1 (star)
  - Time range setting by rotary switch
  - Fine time setting by potentiometer
- Time t2 delay between  $\star/\Delta$ 
  - Fine time setting by potentiometer
- Red LED multifunction flashes or shines depending on the operating status
- Supply terminals A1 – A2
- Power supply AC/DC 12-240 V (AC 50/60 Hz)
- Power input (max.) 2 VA/1,5 W
- Supply voltage tolerance -15% +10%
- Supply indication green LED
- Time scale t1: 0,1 s - 100 days, t2: 0,1 s - 1 s
- Setting switch and potentiometer
- Time tolerance 5% mechanical setting
- Accuracy repeat 0,2% on the set value
- Output type 2 changeover contacts
- Contacts material AgNi
- Current rating 16 A / AC1
- Inrush current 30 A / 3 s
- Breaking capacity 4.000 VA / AC1, 384 W/DC
- Switching voltage 250V AC/24V DC
- Power dissipation(contacts) max 1.2 W
- Output indication multifunction red LED
- Electrical life 50.000 operations
- Mechanical life 10.000.000 operations
- Reset time max. 150 ms
- Civil / tertiary / industrial use
- Type installation DIN rail
- Protection degree (IP) IP20 / IP40 rear panel
- Dielectrical strength 4.000 V ac
- Max cross-section of wires to terminals 1 x 2,5 or 2 x 1,5 mmq, 1 x 2,5 mmq with cable lug
- Operating temperature -20 ÷ 55°C
- Storing temperature -30 ÷ 70°C
- Degree of pollution 2
- Overvoltage category III
- Standard EN 61812-1
- Dimensions (L x W x H) mm 17,6 x 64 x 90
- Weight 78 g.



## 1RT 80MTMF

### Multifunction, multivoltage timer relay 1 DIN

- Multifunction relay for universal use in automation, control and regulation or in house installations.
- Easy function and well-organized time set with rotary switch
- Multifunction red led flashes or shines depending on the operating status
- Supply terminals A1 – A2
- Power supply AC/DC 12-240 V (AC 50/60 Hz)
- Power input (max.) 2 VA/1,5 W
- Time tolerance -15% +10%
- Supply indication green LED
- Time scale t1: 0,1 s - 100 days,
- Setting switch and potentiometer
- Time tolerance 5% mechanical setting
- Accuracy repeat 0,2% on the set value
- Output type 1 changeover contact
- Contacts material AgNi
- Current rating 16 A / AC1
- Breaking capacity 4.000 VA / AC1, 384 W/DC
- Switching voltage 250V AC/24V DC
- Power dissipation(contacts) max 1.2 W
- Output indication multifunction red LED
- Electrical life 50.000 operations
- Mechanical life 10.000.000 operations
- Pulse length min 25ms / max no limits
- Reset time max. 150 ms
- Civil / tertiary / industrial use
- Type installation DIN rail
- Protection degree (IP) IP20 / IP40 rear panel
- Dielectrical strength 4.000 V ac
- Max cross-section of wires to terminals 1 x 2,5 or 2 x 1,5 mmq, 1 x 2,5 mmq with cable lug
- Operating temperature -20 ÷ 55°C
- Storing temperature -30 ÷ 70°C
- Degree of pollution 2
- Overvoltage category III
- Standard EN 61812-1
- Dimensions (L x W x H) mm 17,6 x 64 x 90
- Weight 62 g.



## **1RT 80A**

**Single-function time relay with delay on the switch on 1 DIN**

## **1RT 80B**

**Single-function time relay INTERVAL ON 1 DIN**

## **1RT 80C**

**Single-function time relay OFF delay 1 DIN**

## **1RT 80E**

**Single-function time relay FLASHER – ON first 1 DIN**

- Singlefunction time relays are suitable for applications where there is a clear function requirement in advance and for universal use in automation, control and regulation or in house installations.

- Choice of four types: A, B, C, E.
- All functions initiated by the supply voltage can use the control input to inhibit the ongoing delay (pause)
- Multifunction red LED flashes or shines depending on the operating status.

- Supply terminals A1 – A2
- Power supply AC/DC 12-240 V (AC 50/60 Hz)
- Power input (max.) 2 VA/1,5 W
- Time tolerance -15% +10%
- Supply indication green LED
- Time scale t1: 0,1 s - 100 days,
- Setting switch and potentiometer
- Time tolerance 5% mechanical setting
- Accuracy repeat 0,2% on the set value
- Output type 1 changeover contact
- Contacts material AgNi
- Current rating 16 A / AC1
- Breaking capacity 4.000 VA / AC1, 384 W/DC
- Switching voltage 250V AC/24V DC
- Power dissipation(contacts) max 1.2 W
- Output indication multifunction red LED

- Electrical life 50.000 operations
- Mechanical life 10.000.000 operations
- Reset time max. 150 ms
- Civil / tertiary / industrial use
- Type installation DIN rail
- Protection degree (IP) IP20 / IP40 rear panel
- Dielectrical strength 4.000 V ac
- Max cross-section of wires to terminals  
1 x 2,5 o 2 x 1,5 mmq, 1 x 2,5 mmq with cable lug
- Operating temperature -20 ÷ 55°C
- Storing temperature -30 ÷ 70°C
- Degree of pollution 2
- Overvoltage category III
- Standard EN 61812-1
- Dimensions (L x W x H) mm 17,6 x 64 x 90
- Weight 61 g

# MEASURING INSTRUMENTS



## 1SD SD02AV/2 Ammeter and voltmeter for alternate current measurements - 2 DIN

- Digital modular voltmeter and ammeter for alternate current measurements with 3-digit LED display
- Power supply 230V a.c. +-10% 50-60Hz
- Input voltage 0..500V max a.c. (45...100Hz)
- Input current 5A a.c.
- CAT III 300V
- Amperometric loads between 5 and 999 A with TA
- Reading accuracy class 0.5%
- Dimensions (L x W x H) 35 x 63 x 85 mm



## 1SD SD03A/2 Ammeter for alternate current measurements - 2 DIN

- Digital modular ammeter for alternate current measurements with 3-digit LED display
- Power supply 230V a.c. +-10% 50-60Hz
- Input current  $I_{nom} = 5A$   $I_{max} = 6A$  a.c.
- CAT III 300V
- Amperometric loads between 5 and 999 A with TA
- Reading accuracy class 0.5%
- Dimensions (L x W x H) 35 x 63 x 85 mm



## 1SD SD04V/2 Voltmeter for alternate current measurements - 2 DIN

- Digital modular voltmeter for alternate current measurements with 3-digit LED display
- Power supply 230V a.c. +-10% 50-60Hz
- Input voltage 0..500V max a.c. (45...100Hz)
- input impedance=1.5Mohm
- CAT III 300V
- Amperometric loads between 5 and 999 A with TA
- Reading accuracy class 0.5%
- Dimensions (L x W x H) 35 x 63 x 85 mm



## 1SD SD05MM/2 Single-phase multimeter - 2 DIN

- Digital single-phase multimeter with 3-digit LED display on 2 lines
- Voltage measurement 0-230V
- Current measurement 0.1-26A (30A)
- Active Power Measurement 8.00kW
- Active Energy Measurement (Wh) on 2 lines
- Accounting period 15 min
- Direct connection energy count 9.99 / 999 kWh
- Measurement of the power factor
- Hour counter
- Digital filter
- Dimensions (L x W x H) 35 x 63 x 85 mm



## 1SD SD10MT/2 Three-phase multimeter - 2 DIN

- Digital three-phase multimeter with 3-digit LED display on 2 lines
- Phase-phase voltage VL1, VL2, VL3
- Phase-neutral voltage VL1-N, VL2-N, VL3-N
- Average VL phase average voltage
- Phase current I1, I2, I3
- Phase average current I average
- Current in "Ien" neutral (<imbalance>)
- Basic active power
- Dimensions (L x W x H) 35 x 63 x 85 mm



## 1CO 2400 - 24V a.c. 1CO 1100 - 110V a.c. 1CO 2200 - 220V a.c. 1CO 3800 - 380V a.c. 1CO CC1236 - 10-50V d.c. Hour counter

- Recording ability 99,999.99
- Installed in the panel / on rear of switchboard
- Dimensions (L x W x H) 55 x 56 x 55 mm



## 1CO C024/2 - 24V a.c. 1CO C0110/2 - 110V a.c. 1CO C0230/2 - 230V a.c. 1CO C036C/2 - 12-36V d.c. Hour counter - 2 DIN

- Power supply <10VA
- Recording ability 99,999.99
- Accuracy class 0.5% - 1% (C036C/2)
- Reading accuracy 1/100h (36sec) - 1/10h 6min (C036C/2)
- Dimensions (L x W x H) 35 x 63 x 85 mm

## 1SD SD05CEM/2

### Single-phase analog energy counter - 2 DIN

It accounts for the ACTIVE energy consumption in single-phase 230V systems, up to a maximum current of 100A with an impulsive output of 100ms for each consumed Wh: open collector transistor 5-27 V d.c. max 27 mA d.c.



- 230V power supply c.a.  $\pm 10\%$  50-60Hz
- Digit number 5 numbers + 1 decimal
- Reading resolution 0.1 KWh
- Rated voltage 230V
- Input current 100A max
- Current / Minimum measurable power 40 mA / 9 W
- Accuracy Class 1 IEC62053-21, Class B EN50470-3
- Dimensions (L x W x H) 36 x 63 x 99 mm

## 1SD SD06CEM/1

### Single-phase analog energy counter - 1 DIN

It accounts for the ACTIVE energy consumption in single-phase 230V systems, up to a maximum current of 45A with direct connection, with an impulsive output: transistor open collector 5-27 d.c. max 27 mA d.c.



- 230V power supply c.a.  $\pm 10\%$  50-60Hz
- Digit number 5 numbers + 1 decimal
- Reading resolution 0.1 KWh
- Rated voltage 230V
- Input current 45A max
- Current / Minimum measurable power 20 mA / 4,5 W
- Accuracy Class 1 IEC62053-21, Class B EN50470-3
- Dimensions (L x W x H) 17,5 x 62 x 119 mm

## 1SD SD05CEM2DGT - Digital 1SD SD05CEM2MID - Digital - MID CERTIFIED

### Single-phase digital energy counter - 2 DIN

It regulates the consumption of ACTIVE energy and the electric power in 230V systems c.a. single phase, up to a maximum current of 100A with direct connection, double pulse output: open collector transistor 5-27 V d.c. max 27 mA d.c. .. Push-button reset for partial consumption readings



- 230V power supply c.a.  $\pm 10\%$  50-60Hz
- Number of digits 6 numbers + 1 decimal
- Reading resolution 0.1 KWh
- Rated voltage 230V
- Input current 100A max
- Current / Minimum measurable power 40 mA / 9 W
- MID certificate (CEM2MID)
- Accuracy Class 1 IEC62053-21, Class B EN50470-3
- Dimensions (L x W x H) 36 x 63 x 99 mm

## 1SD SD06CEM1DGT - Digital 1SD SD06CEM1MID - Digital - MID CERTIFIED

### Single-phase digital energy counter - 1 DIN

It regulates the consumption of active energy in 230V systems c.a. single phase, up to a maximum current of 45A with direct connection, with impulsive output: open collector transistor 5-27 V d.c. max 27 mA d.c.



- 230V power supply c.a.  $\pm 10\%$  50-60Hz
- Number of digits 5 numbers + 1 decimal
- Reading resolution 0.1 KWh
- Input current 45A max
- Current / Minimum measurable power 20 mA / 4,5 W
- MID certificate (CEM1MID)
- Accuracy Class 1 IEC62053-21, Class B EN50470-3
- Dimensions (L x W x H) 17,5 x 62 x 119 mm

## 1SD SD10CET4MID

### Three-phase digital energy counter 100A 4 DIN, MID Certified

It regulates the consumption of ACTIVE energy and the electric power in 400V systems c.a. three-phase with neutral up to a maximum current of 100A

Impulsive output: open collector transistor  
Impulsive output: 30ms 1000 pulse / kWh

- 400 power supply c.a.  $\pm 20\%$  50Hz
- Reading resolution 0.1 KWh

- Digit number 6 numbers + 1 decimal
- Rated voltage 3x230/400V
- Input current 100A max
- Class B EN50470-3, MID
- Dimensions (L x W x H) 72 x 100 x 66 mm



# LEVEL REGULATORS



**1CL RLG01/3PVC - PVC cable 3x1 - 3 m long**  
**1CL RLG02/5PVC - PVC cable 3x1 - 5 m long**  
**1CL RLG03/10PVC - PVC cable 3x1 - 10 m long**  
**1CL RLG04/15PVC - PVC cable 3x1 - 15 m long**  
**1CL RLG05/20PVC - PVC cable 3x1 - 20 m long**  
**1CL RLG06/25PVC - PVC cable 3x1 - 25 m long**

**Floating level regulator for clear water**

- Electric range 10 (8) A / 250 V
- Operating Temperature 0-50°C
- Pressure resistance 1 BAR

**1CL RLG025NEOP - NEOPRENEcable 3x1 - 5 m long**  
**1CL RLG0310NEOP - NEOPRENEcable 3x1 - 10 m long**  
**1CL RLG0520NEOP - NEOPRENEcable 3x1 - 20 m long**

- Protection degree IP 68
- Dimensioni (L x W x H) 81 x 131 x 42 mm



**1CL RLG10/5PVC - PVC cable 3x1 - 5 m long**  
**1CL RLG11/10PVC - PVC cable 3x1 - 10 m long**  
**1CL RLG12/20PVC - PVC cable 3x1 - 20 m long**

**Floating level regulator for sewage water**

- Electric range 10 (8) A / 250 V
- Switching angle  $\pm 45^\circ$
- Operating Temperature 0-50°C

**1CL RLG20/5NEOP - NEOPRENEcable 3x1 - 5 m long**  
**1CL RLG21/10NEOP - NEOPRENEcable 3x1 - 10 m long**  
**1CL RLG22/20NEOP - NEOPRENEcable 3x1 - 20 m long**

- Pressure resistance 2 BAR
- Protection degree IP 68
- Dimensioni (L x W x H) 117 x 117 x 222 mm



**1CL RLG3005PVC - PVC cable 3x1 - 5 m long**  
**1CL RLG3010PVC - PVC cable 3x1 - 10 m long**  
**1CL RLG3020PVC - PVC cable 3x1 - 20 m long**  
**1CL RLG3005NEOP - NEOPRENEcable 3x1 - 5 m long - ENEC Approved**  
**1CL RLG3010NEOP - NEOPRENEcable 3x1 - 10 m long - ENEC Approved**  
**1CL RLG3020NEOP - NEOPRENEcable 3x1 - 20 m long - ENEC Approved**

**Floating level regulator for sewage water**

- Electric range 10 (3) A / 250 V
- Switching angle  $\pm 10^\circ$
- Operating Temperature 0-50°C



- Pressure resistance 2 BAR
- Protection degree IP 68
- Dimensions (L x W x H) 100 x 100 x 156 mm



**1CL RLE024/2 - 24V**  
**1CL RLE230/2 - 230V**  
**Electronic level regulator 24V - 2 DIN**

- Power supply 24V 50-60 Hz (RLE024/2)  
230V 50-60 Hz (RLE230/2)
- Electrode voltage 12V
- Relay range 5A / 250 V
- Adjustable sensitivity

- Max. connection length between control unit and probes, approx. 70-80m
- Installation on terminal board IP 20
- Installation on rear of switchboard IP 40
- Dimensions (L x W x H) 37 x 58 x 95 mm



**1CL RLEME/3**  
**Multivoltage electronic level regulator series E evolved - 3 DIN**

- Power supply 24/117/230V 50-60 Hz
- Electrode voltage 12Vpp
- Range of 1st relay 5A / 250 V
- Range of 2nd relay 2A / 250 V
- Adjustable intervention delay 0 - 16sec
- Emptying / filling intervention mode

- Max. connection length between control unit and probes, approx. 1000m
- Installation on terminal board IP 20
- Installation on rear of switchboard IP 40
- Dimensions (L x W x H) 53 x 58 x 95 mm



**1CL RLE230E/2**  
**Electronic level regulator 230V series E evolved - 2 DIN**

- Power supply 230V 50-60 Hz
- Electrode voltage 12Vpp
- Relay range 5A / 250 V
- Adjustable intervention delay 0 - 16sec
- Emptying / filling intervention mode

- Max. connection length between control unit and probes, approx. 1000m
- Installation on terminal board IP 20
- Installation on rear of switchboard IP 40
- Dimensions (L x W x H) 37 x 58 x 95 mm

## ACCESSORIES

**1CL SF010 Probe with electronic wire connection**

- Installation directly in the liquid
- Max. operating temperatures 80°C

- Dimensions (D x L) 22 x 85 mm



**1CL ST021 3-conductor probe holder**

- Installation hole D 65mm
- Max. operating temperatures 80°C

- Dimensions (D x L) 80 x 72 mm



## AUTOMATIC HYGIENIC DEVICES



**1DC AMF08**  
"DUO" serie automatic hand dryer, white  
**1DC AMF08G**  
"DUO" serie automatic hand dryer, grey



The ergonomic design allows the insertion of the hands in a natural way. A double jet of clean air at over 410 km / h wraps the hands on both sides, allowing perfect drying and elimination of the sensation of humidity, in just 12 - 15 seconds.

- Power supply 220V - 240V
- Automatic operation
- 28.000 rpm engine
- IP31 - CLASS II
- Power: total 1450 W  
resistance 350 W  
engine 1100 W
- Air speed 410 km/h
- Air volume 52 l/sec.
- Double antibacterial filter
- Double UV lamp for sanitization of the engine block
- Noise level 73 dB (A) at 2 m
- Material ABS
- Weight 6,56 kg
- Dimensions (LxWxH) 566 x 296 x 177 mm



**Water collection tray, under which there is the ON / OFF button for managing the electrical resistance**



**Safety lock for the water collection tray**



**1DC AMF06**  
"MISTRAL" serie automatic hand dryer with infrared sensor, white ABS  
**1DC AMF06B**  
"MISTRAL" serie automatic hand dryer with infrared sensor, white stainless steel  
**1DC AMF06CS**  
"MISTRAL" serie automatic hand dryer with infrared sensor, satin stainless steel



Mistral electric hand dryer ideal for high turnout, superfast and energy saving. Integrated and certified antibacterial action, with antibacterial filter and UV lamp as standard equipment. Complete range with vandal-proof stainless steel versions.

- Power supply 220V - 240V
- Infrared sensor
- 26.000 rpm engine
- IP23 - CLASS II
- Power: total 1100 W  
resistance 550 W  
engine 550 W
- Antibacterial filter
- UV lamp for sanitization of the engine
- Air speed 300 km/h
- Air volume 52 l/sec.
- Noise level 75 dB (A) at 2 m
- Polypropylene - stainless steel AISI 304
- Dimensions (LxWxH) 285 X 221 X 157 mm



**1DC AMF05**  
"EOLO JET" serie automatic hand dryer with infrared sensor, white  
**1DC AMF05C**  
"EOLO JET" serie automatic hand dryer with infrared sensor, chrome



With a depth of less than 10 cm "EOLO JET" is one of the smallest towels on the market. The quick drying combined with a power of only 900 W allow significant energy savings.

- Power supply 220V - 240V
- Electronic infrared sensor
- 28.000 rpm engine
- IP23 - CLASS II
- Power: total 900 W  
resistance 500 W  
engine 400 W
- Air speed 200 km/h
- Air volume 31 l/sec.
- Noise level 80 dB (A) at 2 m
- Material ABS
- Weight 1,2 kg
- Dimensions (LxWxH) 238 x 156 x 99,5 mm





**1DC AMP03 - Push button**  
**1DC AMF04 - Controlled by photocell**  
**Hand dryer series "EOLO"**

- Power supply 230V a.c. 50-60Hz
- Commutator motor
- Power 1.500 W
- Air volume 1.450 litres/minute
- Insulation class II
- Air temperature 67°C at 10cm
- Noise level 75 dB (A) at 1m
- Dimensions (L x W x H) 133 x 26 x 280 mm



**1DC DS008**  
**Liquid soap dispenser**

- Manual operation
- Capacity 1l
- Wall-mounted
- Dimensions (L x W x H) 130 x 95 x 275 mm



**1DC DC009**  
**Paper tissue dispenser**

- Pull manual operation
- Capacity approx. 600pcs
- Wall-mounted
- Dimensions (L x W x H) 300 x 155 x 295 mm



**1DC ACP06**  
**Push button hairdryer series "EOLO"**

- Power supply 230V a.c. 50-60Hz
- Commutator motor
- Power 750 W
- Air volume 1.050 litres/minute
- Insulation class II
- Air temperature 56°C at 10cm
- Noise level 75 dB (A) at 1m
- Dimensions (L x W x H) 133 x 26 x 280 mm



**1DC ACT10**  
**Nozzle hair dryer series "EOLO"**

- Power supply 230V a.c. 50-60Hz
- Commutator motor
- Power 750 W
- Air volume 1.050 litres/minute
- Insulation class II
- Air temperature 71°C at 10 cm
- Noise level 72 dB (A) at 1m
- Dimensions (L x W x H) 206 x 133 x 280 mm + 350 mm tube



**1DC ACPH13**  
**Hair dryer for hotels**

- Power supply 230V a.c. 50-60Hz
- Power 1.800 W
- on / off button
- Safety thermostat
- 3 temperature position/air flow
- Weight 0,82 kg
- Dimensions (L x W x H) 250 x 220 x 140 + 90 cable mm



**1LE 002M**  
Anti black-out lamp, extractable torch for electric panels - 3 DIN

**EN 60598-2-2 - 230V 50/60 Hz**  
**PC - IP20 - IK04** 

- Power supply 230V c.a. ±15% 50 Hz
- 1 LED 0,5W 20 lumen
- Black-out autonomy 2 h
- Recharge time 36 h
- Replaceable battery Ni-MH 3,6V - 140 mAh
- Consumption 15 mA 3,5 VA
- Protection degree IP30
- Max cross-section of wires to terminals: 0,5..... 1,5 mm<sup>2</sup>
- Working temperature from 0°C to +40°C
- Storing temperature from -10°C to +60°C
- CE marking reference LVD/EMC EN60598-1, EN60598-2-2, EN62471 55015:2006, EN61547
- Dimensions (L x W x H) 38,5 x 60 x 90 mm



**1PR WW00822** Battery pack for replacement for emergency light 1LE002M



**“NEXT” series emergency lights**


**EN 60598-2-22 - 230V 50/60 Hz**  
**PC - IP42/IP65 - IK04** 

- Installable on casing type 503, 502, 506
- Rapid assembly
- Protection degree IP42 or IP65
- Autonomy 1,5 / 3 h depending from model
- Recharge time 12 h
- Dimensions (L x W x H) 252 x 38 (recessed) / 30 x 113 mm

## Standard

## SE Multiled / Not Mantained Multiled

IP  
42


	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE L60L0</b>	White	—	60 lm	1,5 h	0,5	20
<b>1LE L100L0</b>	White	—	105 lm	1,5 h	0,6	20
<b>1LE L120L0</b>	White	—	130 lm	1,5 h	0,6	20
<b>1LE L150L0</b>	White	—	170 lm	1,5 h	0,6	20
<b>1LE L200L0</b>	White	—	180 lm	1,5 h	0,6	20
<b>1LE L3100L0</b>	White	—	75 lm	3 h	0,6	20

IP  
65

<b>1LE LE60L0</b>	White	—	60 lm	1,5 h	0,5	20
<b>1LE LE100L0</b>	White	—	105 lm	1,5 h	0,6	20
<b>1LE LE120L0</b>	White	—	130 lm	1,5 h	0,6	20
<b>1LE LE150L0</b>	White	—	170 lm	1,5 h	0,6	20
<b>1LE LE200L0</b>	White	—	180 lm	1,5 h	0,6	20
<b>1LE LE3100L0</b>	White	—	75 lm	3 h	0,6	20

## SA Multiled / Mantained Multiled

IP  
42

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE LL600</b>	White	—	55 lm	1,5 h	0,5	20
<b>1LE LL1000</b>	White	—	100 lm	1,5 h	0,6	20
<b>1LE LL1500</b>	White	—	150 lm	1,5 h	0,6	20
<b>1LE LL31000</b>	White	—	70 lm	3 h	0,6	20

IP  
65

<b>1LE LLE600</b>	White	—	55 lm	1,5 h	0,5	20
<b>1LE LLE1000</b>	White	—	100 lm	1,5 h	0,5	20
<b>1LE LLE1500</b>	White	—	150 lm	1,5 h	0,6	20
<b>1LE LLE31000</b>	White	—	70 lm	3 h	0,6	20

## Accessories

Maximum viewing distance  
(according to EN 1838 for  
signals with internal lighting)

**22 m**

Maximum viewing distance  
(according to EN 1838 for  
signals with internal lighting)

**15 m**

<b>1LE LFE</b>	Spring for installation in false ceilings
<b>1LE LDB</b>	Blade diffuser
<b>1LE LMEP</b>	Wall recessed casing for wall recessed installation
<b>1LE UAV</b>	Protection cage
<b>1LE USBC</b>	Bracket for ceiling recessed

<b>1LE LPNL</b>	Sticker pictogram 215 x 75 mm, arrow left to be placed directly on the lamp
<b>1LE LPNR</b>	Sticker pictogram 215 x 75 mm, arrow right to be placed directly on the lamp
<b>1LE LPNSD</b>	Sticker pictogram 215 x 75 mm, arrow down to be placed directly on the lamp

<b>1LE LNL</b>	Sticker pictogram 230 x 110 mm, arrow left for 1LE LBD
<b>1LE LNR</b>	Sticker pictogram 230 x 110 mm, arrow right for 1LE LBD
<b>1LE LNSD</b>	Sticker pictogram 230 x 110 mm, arrow down for 1LE LBD





## “GS” series emergency lights


**EN 60598-2-22 - 230V 50/60 Hz**  
**PC - IP44 - IK04**  

- Rapid assembly
- Protection degree IP44
- Autonomy 1 / 2 / 3 h depending from model
- Recharge time 24 h
- Dimensions (L x W x H) 252 x 40 x 100 mm

### Standard


#### SE Multiled / Mantained Multiled

IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE G60L</b>	White	—	70 lm	1 h	0,3	30
<b>1LE G100L</b>	White	—	110 lm	1 h	0,3	30
<b>1LE G150L</b>	White	—	150 lm	1 h	0,3	30
<b>1LE G200L</b>	White	—	210 lm	1 h	0,3	30
<b>1LE G300L</b>	White	—	325 lm	1 h	0,4	30
<b>1LE G400L</b>	White	—	400 lm	1 h	0,4	30
<b>1LE G500L</b>	White	—	500 lm	1 h	0,4	30
<b>1LE G2300L</b>	White	—	305 lm	2 h	0,4	30
<b>1LE G3100L</b>	White	—	130 lm	3 h	0,4	30
<b>1LE G3200L</b>	White	—	200 lm	3 h	0,4	30


#### SE Multiled / Mantained Multiled

IP  
65

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE GE100L</b>	White	—	110 lm	1 h	0,3	30

#### SA Multiled / Not Mantained Multiled


IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE GL60</b>	White	—	80 lm	1 h	0,3	30
<b>1LE GL100</b>	White	—	100 lm	1 h	0,3	30
<b>1LE GL150</b>	White	—	170 lm	1 h	0,3	30
<b>1LE GL200</b>	White	—	200 lm	1 h	0,3	30
<b>1LE GL300</b>	White	—	300 lm	1 h	0,3	30
<b>1LE GL3100</b>	White	—	110 lm	3 h	0,4	30

### Autotest


#### SE Multiled / Mantained Multiled

IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE GA60L</b>	White	—	70 lm	1 h	0,3	30
<b>1LE GA100L</b>	White	—	130 lm	1 h	0,3	30
<b>1LE GA150L</b>	White	—	170 lm	1 h	0,3	30
<b>1LE GA200L</b>	White	—	200 lm	1 h	0,3	30
<b>1LE GA300L</b>	White	—	310 lm	1 h	0,4	30
<b>1LE GA400L</b>	White	—	465 lm	1 h	0,4	30
<b>1LE GA3200L</b>	White	—	195 lm	3 h	0,4	30

#### SA Multiled / Not Mantained Multiled

IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE GAL60</b>	White	—	75 lm	1 h	0,3	20
<b>1LE GAL150</b>	White	—	155 lm	1 h	0,3	30
<b>1LE GAL200</b>	White	—	190 lm	1 h	0,3	30
<b>1LE GAL300</b>	White	—	310 lm	1 h	0,3	30

## Accessories

<b>1LE GDB</b>	Blade diffuser compatible with all lamps "Serie GS"
<b>1LE GDBE</b>	Blade diffuser for ceiling recessed installation, compatible with all lamps "Serie GS" equipped with G-ME accessory
<b>1LE GDBP</b>	Wall (surface) blade diffuser compatible with all lamps "Serie GS"
<b>1LE GDBPE</b>	Blade diffuser for ceiling recessed installation, compatible with all lamps "Serie GS" equipped with G-ME accessory
<b>1LE GME</b>	Recession frames for lamps "Serie GS", white color
<b>1LE O-AT</b>	M20 mounting tube adapter. It doesn't guarantee the degree of insulation IP67
<b>1LE S-TE</b>	Command for control up to 300 standard Standard or Autotest lamps
<b>1LE GAMS</b>	Watertight kit (IP65) consisting of gaskets, PG7 cable glands and gaskets for screws
<b>1LE GMS</b>	Waterproof case IP67 and IK10 for lamps "Serie GS"
<b>1LE NL</b>	Sticker pictogram 150 x 90 mm, arrow left to be placed directly on "Serie GS" lamps
<b>1LE NR</b>	Sticker pictogram 150 x 90 mm, arrow right to be placed directly on "Serie GS" lamps
<b>1LE NSD</b>	Sticker pictogram 150 x 90 mm, arrow down to be placed directly on "Serie GS" lamps
<b>1LE PDA</b>	Sticker pictogram 240 x 120 mm, arrow left/right. For 1LE GDB and 1LE GDBE
<b>1LE PDSB</b>	Sticker pictogram 240 x 120 mm, arrow down. For 1LE GDB and 1LE GDBE
<b>1LE PDSU</b>	Sticker pictogram 240 x 120 mm, arrow up. For 1LE GDB and 1LE GDBE

Maximum viewing distance  
(according to EN 1838 for  
signals with internal lighting)

**18 m**

Maximum viewing distance  
(according to EN 1838 for  
signals with internal lighting)

**24 m**



### "ELIOS" series emergency lights

**EN 60598-2-22 - 230V 50/60 Hz**  
**PC - IP42 - IK04** 

- Installable on casing type 503
- Rapid assembly
- Protection degree IP44

- Autonomy 1 / 2 / 3 h depending from model
- Recharge time 10 / 24 h
- Dimensions (L x W x H) 322 x 52 x 120 mm

## Standard

## SE Multitiled / Not Maintained Multitiled


IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE D30L0</b>	White	—	45 lm	1 h	0,5	20
<b>1LE D60L0</b>	White	—	60 lm	1 h	0,5	20
<b>1LE D100L0</b>	White	—	110 lm	1 h	0,5	20
<b>1LE D120L0</b>	White	—	120 lm	1 h	0,5	20
<b>1LE D150L0</b>	White	—	140 lm	1 h	0,5	20
<b>1LE D200L0</b>	White	—	200 lm	1 h	0,5	20
<b>1LE D250L0</b>	White	—	235 lm	1 h	0,5	20
<b>1LE D300L0</b>	White	—	330 lm	1 h	0,5	20
<b>1LE D400L0</b>	White	—	400 lm	1 h	0,6	20
<b>1LE D500L0</b>	White	—	480 lm	1 h	0,6	20
<b>1LE D600L0</b>	White	—	580 lm	1 h	0,7	20
<b>1LE D700L0</b>	White	—	675 lm	1 h	0,8	20
<b>1LE D2200L0</b>	White	—	200 lm	2 h	0,6	20
<b>1LE D2400L0</b>	White	—	410 lm	2 h	0,7	20
<b>1LE D360L0</b>	White	—	60 lm	3 h	0,5	20
<b>1LE D3200L0</b>	White	—	200 lm	3 h	0,6	20
<b>1LE D3400L0</b>	White	—	450 lm	3 h	0,6	20

## Standard


### SA LED / Mantained LED

IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE DL1000</b>	White	—	130 lm	1 h	0,5	20
<b>1LE DL1500</b>	White	—	170 lm	1 h	0,5	20
<b>1LE DL2000</b>	White	—	230 lm	1 h	0,5	20
<b>1LE DL2500</b>	White	—	235 lm	1 h	0,5	20
<b>1LE DL3000</b>	White	—	360 lm	1 h	0,5	20
<b>1LE DL4000</b>	White	—	400 lm	1 h	0,6	20
<b>1LE DL5000</b>	White	—	480 lm	1 h	0,7	20
<b>1LE DL22000</b>	White	—	270 lm	2 h	0,7	20
<b>1LE DL31000</b>	White	—	120 lm	3 h	0,7	20

### SA Multiled / Mantained Multiled


IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE DL60M</b>	White	—	70 lm	1 h	0,5	20
<b>1LE DL150M</b>	White	—	145 lm	1 h	0,5	20
<b>1LE DL200M</b>	White	—	170 lm	1 h	0,5	20
<b>1LE DL300M</b>	White	—	325 lm	1 h	0,5	20

## Autotest

### SE Multiled / Not Mantained Multiled


IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE DA100L0</b>	White	—	135 lm	1 h	0,5	20
<b>1LE DA200L0</b>	White	—	195 lm	1 h	0,5	20
<b>1LE DA300L0</b>	White	—	290 lm	1 h	0,5	20
<b>1LE DA400L0</b>	White	—	390 lm	1 h	0,6	20
<b>1LE DA500L0</b>	White	—	490 lm	1 h	0,6	20
<b>1LE DA600L0</b>	White	—	580 lm	1 h	0,7	20
<b>1LE DA2200L0</b>	White	—	210 lm	2 h	0,5	20
<b>1LE DA3200L0</b>	White	—	180 lm	3 h	0,6	20

## Autotest

### SA Multiled / Mantained Multiled

IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE DAL100M</b>	White	—	92 lm	1 h	0,5	20
<b>1LE DAL200M</b>	White	—	210 lm	1 h	0,5	20
<b>1LE DAL300M</b>	White	—	300 lm	1 h	0,5	20
<b>1LE DAL2200M</b>	White	—	200 lm	2 h	0,5	20
<b>1LE DAL3100M</b>	White	—	120 lm	3 h	0,5	20

## DALI


### SE Multiled / Not Mantained Multiled

Works with

**NormaLINK** 




IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE DID100L</b>	White	DALI	140 lm	1 h	0,5	20
<b>1LE DID200L</b>	White	DALI	190 lm	1 h	0,5	20
<b>1LE DID300L</b>	White	DALI	300 lm	1 h	0,5	20
<b>1LE DID400L</b>	White	DALI	410 lm	1 h	0,6	20
<b>1LE DID500L</b>	White	DALI	500 lm	1 h	0,6	20
<b>1LE DID2200L</b>	White	DALI	200 lm	2 h	0,5	20
<b>1LE DID3200L</b>	White	DALI	200 lm	3 h	0,6	20

### SA Multiled / Mantained Multiled

IP  
44

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE DIDL100M</b>	White	—	92 lm	1 h	0,5	20
<b>1LE DIDL200M</b>	White	—	210 lm	1 h	0,5	20
<b>1LE DIDL300M</b>	White	—	300 lm	1 h	0,5	20
<b>1LE DIDL2200M</b>	White	—	215 lm	2 h	0,5	20
<b>1LE DIDL3100M</b>	White	—	120 lm	3 h	0,5	20

## Accessories

	<b>1LE DAT</b>	Wire adaptors (external tube)
	<b>1LE DMS</b>	Waterproof box IP-66, IK -10
	<b>1LE DMDB</b>	IP65 box for blade diffuser, IK-07
	<b>1LE USBL</b>	Bracket for ceiling recessed
	<b>1LE UAV</b>	Protection cage
	<b>1LE DKS</b>	Hanging kit. 300 mm
	<b>1LE STE</b>	Command for control up to 300 Standard or Autotest lamp
	<b>1LE DDB</b>	Blade diffuser 332x132 mm.
	<b>1LE DMEL</b>	Ceiling recession frame for ELIOS emergency lights
	<b>1LE DMEP</b>	Kit including wall recessed casing for wall recessed installation of Elios lamp
	<b>1LE DDBEL</b>	Blade diffuser for recessed installation in false ceiling
	<b>1LE NL</b>	Sticker pictogram 150 x 90 mm, arrow left for DMDB and DEDB
	<b>1LE NR</b>	Sticker pictogram 150 x 90 mm, arrow right for DMDB and DEDB
	<b>1LE NSD</b>	Sticker pictogram 150 x 90 mm, arrow down for DMDB and DEDB
	<b>1LE NSU</b>	Sticker pictogram 150 x 90 mm, arrow up for DMDB and DEDB
	<b>1LE LNL</b>	Sticker pictogram 230 x 110 mm, arrow left for DMDB and on lamp diffuser
	<b>1LE LNR</b>	Sticker pictogram 230 x 110 mm, arrow right for DMDB and on lamp diffuser
	<b>1LE LNSD</b>	Sticker pictogram 230 x 110 mm, arrow down for DMDB and on lamp diffuser
	<b>1LE LNSU</b>	Sticker pictogram 230 x 110 mm, arrow up for DMDB and on lamp diffuser
	<b>1LE PDUA</b>	Non-sticker pictogram 230 x 110 mm, arrow left/right for DMDB and DDBEL
	<b>1LE PDUSD</b>	Non-sticker pictogram 230 x 110 mm, arrow down for DMDB and DDBEL
	<b>1LE PDUSU</b>	Non-sticker pictogram 230 x 110 mm, arrow up for DMDB and DDBEL
Maximum viewing distance (according to EN 1838 for signals with internal lighting)	<b>18 m</b>	
Maximum viewing distance (according to EN 1838 for signals with internal lighting)	<b>22 m</b>	
Maximum viewing distance (according to EN 1838 for signals with internal lighting)	<b>24 m</b>	



### “InvisibLED” series emergency lights

**EN 60598-2-22 - 230V 50/60 Hz**  
**PC - IP20 - IK04**  


- Rapid assembly
- Protection degree IP40
- Autonomy 1 / 3 h depending from model

- Recharge time 24 h
- Dimensions (Ø x W) 50 x 33 mm

## Standard


IP  
40

### SE / Not Mantained

	OPTICS	COM.	LUMEN	AUTONOMY		KIT
<b>1LE VSE</b>	Corridor	—	205 lm	1 h	0,2	20
<b>1LE VVE</b>	Area	—	205 lm	1 h	0,3	20
<b>1LE VSEH</b>	Corridor	—	410 lm	1 h	0,5	20
<b>1LE VVEH</b>	Area	—	415 lm	1 h	0,5	20
<b>1LE VSE3</b>	Corridor	—	205 lm	3 h	0,4	20
<b>1LE VVE3</b>	Area	—	205 lm	3 h	0,4	20

### SA / Mantained

IP  
40

	OPTICS	COM.	LUMEN	AUTONOMY		KIT
<b>1LE VS</b>	Corridor	—	210 lm	1 h	0,5	20
<b>1LE VV</b>	Area	—	220 lm	1 h	0,6	20
<b>1LE VS3</b>	Corridor	—	210 lm	3 h	0,5	20
<b>1LE VV3</b>	Area	—	220 lm	3 h	0,5	20

## Autotest

### SE / Not Maintained

IP  
40

	OPTICS	COM.	LUMEN	AUTONOMY		KIT
<b>1LE VSEA</b>	Corridor	—	195 lm	1 h	0,2	20
<b>1LE VVEA</b>	Area	—	195 lm	1 h	0,3	20
<b>1LE VSEAH</b>	Corridor	—	410 lm	1 h	0,5	20
<b>1LE VVEAH</b>	Area	—	415 lm	1 h	0,5	20

### SE+SA / Maintained+Not Maintained

IP  
40

	OPTICS	COM.	LUMEN	AUTONOMY		KIT
<b>1LE VSA</b>	Corridor	—	210 lm	1 h	0,5	20
<b>1LE VVA</b>	Area	—	220 lm	1 h	0,6	20
<b>1LE VSA3</b>	Corridor	—	210 lm	3 h	0,5	20
<b>1LE VVA3</b>	Area	—	220 lm	3 h	0,5	20



### “USCITA SICURA” series emergency lights

**EN 1838 - 230V 50/60 Hz**  
**PC - IP20 - IK04**

- Installable on casing type 503
- Rapid assembly
- Include: 3 pictograms, wall mount kit, perpendicular wall kit
- Protection degree IP20
- Recharge time 24 h
- Dimensions (L x W x H) 357 x 34 x 225 mm

## Standard

### SA / Maintained

IP  
20

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE SGO</b>	White	-	1 h	0,9	8	-
<b>1LE SG30</b>	White	-	3 h	0,9	8	-

## Autotest

### SA / Maintained

IP  
20

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE SGA0</b>	White	-	1 h	0,9	8	-
<b>1LE SGA30</b>	White	-	3 h	0,9	8	-

## DALI

Works with **NormaLINK**

IP  
20

### SA / Maintained

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE SGIDK</b>	White	DALI	1 h	0,9	8	-
<b>1LE SGID3K</b>	White	DALI	3 h	0,9	8	-

## Electrified track

IP  
20

### SA / Maintained

	COLOR	COM.	LUMEN	AUTONOMY		KIT
<b>1LE SG-KD</b>	White	-	100 lm	1 h	0,8	8

## Accessories

Maximum viewing distance  
(according to EN 1838 for  
signals with internal lighting)

**24 m**

<b>1LE SGNL</b>	Sticker pictogram 300 x 120 mm, arrow left
<b>1LE SGNR</b>	Sticker pictogram 300 x 120 mm, arrow right
<b>1LE SGNSD</b>	Sticker pictogram 300 x 120 mm, arrow down
<b>1LE SGN SU</b>	Sticker pictogram 300 x 120 mm, arrow up

# RETURN OF GOODS - General terms and sales conditions

## RESERVED TO PERRY CUSTOMERS

### A – WARRANTY RETURNS

Warranty returns will include all products that are considered to be out of order and sent DDP (Delivery Duty Paid) to our headquarter in Veniano (CO) - Italy - via Milanese 11, within the period of 24 months from the manufacturing date specified in each individual product. As far as the aforesaid products are concerned, they will be replaced with brand new products, except for the items whose sales price, net of discount, is higher than 52.00 €. For technical reasons, all Hygiene Devices are excluded, as a laboratory check is necessary for them before the full acceptance of the WARRANTY, with subsequent repairing. It is understood that in case of products whose sales price net of discount is higher than 52.00 €, the necessary repairs will be carried out, and then the products will be resent to the sender. In case of Warranty products, no charge will be issued, except in case the product is damaged and/or tampered with due to installation negligence. In this case, they will be considered as non-warranty returns.

### B – NON-WARRANTY RETURNS

Non-warranty returns will include all products that are sent DDP (Delivery Duty Paid) to our headquarter in Veniano (CO) - Italy after the period of 24 months, and within 5 years from the manufacturing date specified in each individual product. As far as all non-warranty products are concerned, we will replace the products with a new product and/or with an item that was recovered as new product, and we will charge 50% of the product cost according to the prices of the pricelist in force. It is understood that in case of products whose sales price net of discount is higher than 52.00 €, and for technical reasons, all Hygiene Devices will be subject to the necessary repairs, and then will be resent to the sender. Note. All items not included in the catalogue any more, but within 5 years from the above-mentioned date in each individual product, will be repaired or replaced with equivalent products, and then resent to the sender at the aforesaid conditions.

### C – PRODUCTS RETURNED LATER THAN 5 YEARS

The products that are returned later than 5 years from the production date labelled on the product will be resent to the sender without being subject to any intervention.

## GENERAL TERMS AND SALES CONDITIONS

### 1 – ACCEPTANCE OF THE CONTRACT

Each order is accepted according to the following sales conditions and general terms, unless otherwise agreed, to be confirmed in writing by Perry Electric.

### 2 - WI-FI PRODUCTS

Perry Electric shall not, under any circumstances, be liable if the products fail to operate due to the interruption of the internet network or unavailability of these resources: Cloud, Server, Portal.

**2.1** Internet access costs are charged to users according to the rates of their mobile phone provider.

### 3 – TERMS OF DELIVERY

Orders are accepted with a delivery date within 45 days, unless otherwise agreed, to be confirmed in writing by Perry Electric.

### 4 – PRICES

Prices are without VAT.

### 5 – RISKS

The goods always travel at the risk of the purchaser who, in its own interest, must check the quantity and the conditions of the goods before the collection and eventually express proper reserves to the transporting company.

### 6 – TRANSPORT

Transport is, if not specifically indicated, at the customers' charge.

### 7 – SPECIAL VOLTAGE

For orders with supply voltages different from those indicated in the catalogue, there will be at least a 15% increase on the standard price.

### 8 – NON STANDARD QUANTITIES

For quantities different from the standard packing, there will be a 5% increase on the standard price.

### 9 – CLAIMS

Claims have to be made in writing to Perry Electric in Veniano (CO) - Italy - via Milanese 11, within 8 days from goods receipt. Perry reserves the right or not to accept the return of eventual faulty devices that have to be sent DDP (Delivery Duty Paid) to our headquarter in Veniano (CO) - Italy - via Milanese 11.

### 10 – PAYMENT TERMS

Payments must be done for the fixed amount at the fixed dates. In case of delay in payment, even partial, beyond the terms agreed at the time of order, Perry Electric is entitled to apply an interest rate equivalent to the banks' current interest rate increased by 4%.

### 11 - COMPETENT COURT

The Court of Milan – Italy, will be competent for all disputes.

### 12 - VERIFICATION OF LOCAL STANDARDS

The importer/distributor is obliged to verify the local standards and regulations of the country of sale/installation of the product.

Technical data and information mentioned in this documentation are subject to modifications. Perry Electric reserves the right to modify the mentioned specifications without prior notice, at any time, according to the evolution of materials and technologies. The products must be installed in compliance with the general standards in force, by qualified electricians. Perry Electric declines any liability in connection with the use of products that provide for special environmental and/or installation standards, whose compliance falls under the competence of the installer.





# CATALOGUE



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